

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

## 1 Identification

- **Product identifier**
- **Trade name:** HOLLANDE'S FIXATIVE
- **Article number:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1A H350 May cause cancer.



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05



GHS07



GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

formaldehyde

Acetic Acid Glacial

cupric acetate

2,4,6-trinitrophenol

- **Hazard statements**

Harmful if swallowed, in contact with skin or if inhaled.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 1)

*Causes severe skin burns and eye damage.*

*May cause an allergic skin reaction.*

*Suspected of causing genetic defects.*

*May cause cancer.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*Use only outdoors or in a well-ventilated area.*

*Contaminated work clothing must not be allowed out of the workplace.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*IF exposed or concerned: Get medical advice/attention.*

*Immediately call a POISON CENTER/doctor.*

*Specific treatment (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*Take off contaminated clothing and wash it before reuse.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = \*4

Fire = 0

Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

50-00-0	formaldehyde	10-25%
64-19-7	Acetic Acid Glacial	2.5-10%

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 2)

6046-93-1 cupric acetate

≤ 2.5%

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

(Contd. on page 4)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 3)

### · Protective Action Criteria for Chemicals

· PAC-1:		
50-00-0	formaldehyde	0.90 ppm
64-19-7	Acetic Acid Glacial	5 ppm
6046-93-1	cupric acetate	9.4 mg/m <sup>3</sup>
88-89-1	2,4,6-trinitrophenol	0.3 mg/m <sup>3</sup>
· PAC-2:		
50-00-0	formaldehyde	14 ppm
64-19-7	Acetic Acid Glacial	35 ppm
6046-93-1	cupric acetate	23 mg/m <sup>3</sup>
88-89-1	2,4,6-trinitrophenol	17 mg/m <sup>3</sup>
· PAC-3:		
50-00-0	formaldehyde	56 ppm
64-19-7	Acetic Acid Glacial	250 ppm
6046-93-1	cupric acetate	140 mg/m <sup>3</sup>
88-89-1	2,4,6-trinitrophenol	100 mg/m <sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.  
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
 The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
 At this time, the remaining constituent has no known exposure limits.

### 50-00-0 formaldehyde

PEL	Short-term value: 2 ppm Long-term value: 0.75 ppm see 29 CFR 1910.1048(c)
-----	---

(Contd. on page 5)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 4)

<b>REL</b>	Long-term value: 0.016 ppm Ceiling limit value: 0.1* ppm *15-min; See Pocket Guide App. A
<b>TLV</b>	Short-term value: 0.37 mg/m <sup>3</sup> , 0.3 ppm Long-term value: 0.12 mg/m <sup>3</sup> , 0.1 ppm DSEN; RSEN
<b>64-19-7 Acetic Acid Glacial</b>	
<b>PEL</b>	Long-term value: 25 mg/m <sup>3</sup> , 10 ppm
<b>REL</b>	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm
<b>TLV</b>	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses



Tightly sealed goggles

US

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 5)

## 9 Physical and chemical properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
Form:	Liquid
Color:	Green
· <b>Odor:</b>	Recognizable
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-21 °C (-6 °F)
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not flammable.
· <b>Ignition temperature:</b>	~300 °C (~572 °F)
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
Lower:	7.0 Vol %
Upper:	73.0 Vol %
· <b>Vapor pressure at 20 °C (68 °F):</b>	1.7 hPa (1 mm Hg)
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
Water:	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b> Not determined.	
· <b>Viscosity:</b>	
Dynamic:	Not determined.
Kinematic:	Not determined.
· <b>Solvent content:</b>	
Organic solvents:	29.0 %
VOC content:	29.0 %
	290.0 g/l / 2.42 lb/gl
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 6)

- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**50-00-0 formaldehyde**

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

50-00-0	formaldehyde	I
---------	--------------	---

- **NTP (National Toxicology Program)**

50-00-0	formaldehyde	K
---------	--------------	---

- **OSHA-Ca (Occupational Safety Health Administration)**

50-00-0	formaldehyde	
---------	--------------	--

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Toxic for fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even small quantities leak into the ground.

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 7)

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA** UN1760

· **UN proper shipping name**

· **DOT**

Corrosive liquids, n.o.s. (Acetic acid, glacial, Formaldehyde solutions)

· **ADR**

1760 Corrosive liquids, n.o.s. (Acetic acid, glacial, Formaldehyde solutions), ENVIRONMENTALLY HAZARDOUS

· **IMDG**

CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT

· **IATA**

CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)

· **Transport hazard class(es)**

· **DOT**



· **Class**

8 Corrosive substances

· **Label**

8

· **ADR, IMDG**



· **Class**

8 Corrosive substances

(Contd. on page 9)



# Safety Data Sheet


acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 8)

· <b>Label</b>	8
· <b>IATA</b>	
	
· <b>Class</b>	8 Corrosive substances
· <b>Label</b>	8
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	Product contains environmentally hazardous substances: cupric acetate
· <b>Marine pollutant:</b>	Symbol (fish and tree)
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Danger code (Kemler):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1760 CORROSIVE LIQUIDS, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTIONS), 8, III, ENVIRONMENTALLY HAZARDOUS

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

50-00-0 formaldehyde

(Contd. on page 10)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 9)

· **Section 313 (Specific toxic chemical listings):**

50-00-0 formaldehyde

88-89-1 2,4,6-trinitrophenol

· **TSCA (Toxic Substances Control Act):**

50-00-0 formaldehyde

64-19-7 Acetic Acid Glacial

88-89-1 2,4,6-trinitrophenol

· **Proposition 65**

· **Chemicals known to cause cancer:**

50-00-0 formaldehyde

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

50-00-0 formaldehyde

B1

· **TLV (Threshold Limit Value established by ACGIH)**

50-00-0 formaldehyde

A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

50-00-0 formaldehyde

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05

GHS07

GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

formaldehyde

Acetic Acid Glacial

cupric acetate

2,4,6-trinitrophenol

· **Hazard statements**

Harmful if swallowed, in contact with skin or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dusts or mists.

(Contd. on page 11)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 10)

- Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Use only outdoors or in a well-ventilated area.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
**IF SWALLOWED:** Call a POISON CENTER/doctor if you feel unwell.  
**If swallowed:** Rinse mouth. Do NOT induce vomiting.  
**If on skin (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower.  
**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.  
**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**IF exposed or concerned:** Get medical advice/attention.  
 Immediately call a POISON CENTER/doctor.  
 Specific treatment (see on this label).  
**If skin irritation or rash occurs:** Get medical advice/attention.  
 Take off contaminated clothing and wash it before reuse.  
 Wash contaminated clothing before reuse.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **National regulations:**
  - **Information about limitation of use:**  
 Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Date of preparation / last revision** 06/22/2017 / -
- **Abbreviations and acronyms:**  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety **Health**  
**TLV: Threshold Limit Value**  
**PEL: Permissible Exposure Limit**  
**REL: Recommended Exposure Limit**  
**Acute Tox. 4: Acute toxicity – Category 4**  
**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**  
**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**  
**Skin Sens. 1: Skin sensitisation – Category 1**  
**Muta. 2: Germ cell mutagenicity – Category 2**  
**Carc. 1A: Carcinogenicity – Category 1A**

# Safety Data Sheet

## according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

### 1 Identification

· **Product identifier**

· **Trade name:** HOLLANDE'S FIXATIVE

· **Article number:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP

· **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.

· **Application of the substance / the mixture** Laboratory chemicals

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

ProSciTech Pty Ltd

11 Carlton Street, Kirwan QLD 4817 Australia

Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)

Emgrid Australia Pty. Ltd.

P.O. Box 118

The Patch VIC 3792

Australia

Tel: 03 9752 1785

Fax: 03 9752 1784

Website: [www.emgrid.com.au](http://www.emgrid.com.au)

· **Further information obtainable from:** Product safety department

· **Emergency telephone number:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### 2 Hazard(s) Identification

· **Classification of the substance or mixture**



GHS08 health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 1A H350 May cause cancer.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· **Label elements**

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).  
(Contd. on page 2)

## Safety Data Sheet according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 1)

· **Hazard pictograms**

GHS05   GHS07   GHS08

· **Signal word** *Danger*· **Hazard-determining components of labelling:***formaldehyde**Acetic Acid Glacial**cupric acetate**2,4,6-trinitrophenol*· **Hazard statements***Harmful if swallowed.**Harmful in contact with skin.**Harmful if inhaled.**Causes severe skin burns and eye damage.**May cause an allergic skin reaction.**Suspected of causing genetic defects.**May cause cancer.*· **Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dusts or mists.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Contaminated work clothing should not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.**IF SWALLOWED: rinse mouth. Do NOT induce vomiting.**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.**IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.**Continue rinsing.**IF exposed or concerned: Get medical advice/attention.**Immediately call a POISON CENTER/doctor.**Specific treatment (see on this label).**If skin irritation or rash occurs: Get medical advice/attention.**Take off contaminated clothing and wash it before reuse.**Wash contaminated clothing before reuse.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

AU

(Contd. on page 3)

# Safety Data Sheet

## according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 2)

### 3 Composition and Information on Ingredients

- **Chemical characterisation:** *Mixtures*
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

· <b>Dangerous components:</b>		
50-00-0	formaldehyde	10-25%
64-19-7	Acetic Acid Glacial	2.5-10%
6046-93-1	cupric acetate	≤ 2.5%

- **Additional information:** *For the wording of the listed hazard phrases refer to section 16.*

### 4 First Aid Measures

- **Description of first aid measures**
- **General information:**  
*Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*
- **After inhalation:**  
*Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- **After swallowing:**  
*Call for a doctor immediately.  
Drink plenty of water and provide fresh air. Call for a doctor immediately.*
- **Information for doctor:**  
*Most important symptoms and effects, both acute and delayed No further relevant information available.*
- **Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### 5 Fire Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** *Use fire extinguishing methods suitable to surrounding conditions.*
- **Special hazards arising from the substance or mixture** *No further relevant information available.*
- **Advice for firefighters**
- **Protective equipment:** *Mouth respiratory protective device.*

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures**  
*Wear protective equipment. Keep unprotected persons away.*
- **Environmental precautions:**  
*Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralising agent.*

(Contd. on page 4)

AU

## Safety Data Sheet according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 3)

- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.
- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**
- Ensure good ventilation/exhaustion at the workplace.
- Open and handle receptacle with care.
- Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

#### 50-00-0 formaldehyde

WES	Short-term value: 2.5 mg/m <sup>3</sup> , 2 ppm
	Long-term value: 1.2 mg/m <sup>3</sup> , 1 ppm
	Sen

#### 64-19-7 Acetic Acid Glacial

WES	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm
	Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- **Respiratory protection:**
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 5)

AU

# Safety Data Sheet

## according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 4)

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses



Tightly sealed goggles

## 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Green
<b>Odour:</b>	Recognisable
<b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	-21 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:** ~300 °C

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

<b>Lower:</b>	7.0 Vol %
<b>Upper:</b>	73.0 Vol %

· **Vapour pressure at 20 °C:** 1.7 hPa

(Contd. on page 6)



## Safety Data Sheet according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 5)

· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	29.0 %
<b>VOC (EC)</b>	29.00 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

· **LD/LC50 values relevant for classification:**

**50-00-0 formaldehyde**

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **Skin corrosion/irritation** Strong caustic effect on skin and mucous membranes.
- **Serious eye damage/irritation**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic.

(Contd. on page 7)

## Safety Data Sheet according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 6)

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**  
Muta. 2, Carc. 1A

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- |                                  |  |
|----------------------------------|--|
| · <b>UN-Number</b>               |  |
| · <b>ADG, IMDG, IATA</b>         | UNI760   |
| · <b>UN proper shipping name</b> |  |
| · <b>ADG</b>                     | 1760 CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), ENVIRONMENTALLY HAZARDOUS |
| · <b>IMDG</b>                    | CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT               |
| · <b>IATA</b>                    | CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)                                 |

(Contd. on page 8)

-AU

# Safety Data Sheet

according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 7)

· **Transport hazard class(es)**· **ADG, IMDG**· **Class**

8 Corrosive substances.

· **Label**

8

· **IATA**· **Class**

8 Corrosive substances.

· **Label**

8

· **Packing group**· **ADG, IMDG, IATA**

III

· **Environmental hazards:**Product contains environmentally hazardous substances:  
cupric acetate· **Marine pollutant:**

Symbol (fish and tree)

· **Special marking (ADG):**

Symbol (fish and tree)

· **Special precautions for user**

Warning: Corrosive substances.

· **Danger code (Kemler):**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Acids

· **Stowage Category**

A

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of Marpol  
and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADG**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· **Transport category**

3

· **Tunnel restriction code**

E

· **IMDG**· **Limited quantities (LQ)**

5L

· **Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

(Contd. on page 9)

# Safety Data Sheet

## according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 8)

· **UN "Model Regulation":** *UN 1760 CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), 8, III, ENVIRONMENTALLY HAZARDOUS*

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

All ingredients are listed.

· **Standard for the Uniform Scheduling of Medicines and Poisons**

50-00-0	formaldehyde	S2, S6, S10
64-19-7	Acetic Acid Glacial	S2, S5, S6
88-89-1	2,4,6-trinitrophenol	S4, S6

· **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS05    GHS07    GHS08

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

*formaldehyde*

*Acetic Acid Glacial*

*cupric acetate*

*2,4,6-trinitrophenol*

· **Hazard statements**

*Harmful if swallowed.*

*Harmful in contact with skin.*

*Harmful if inhaled.*

*Causes severe skin burns and eye damage.*

*May cause an allergic skin reaction.*

*Suspected of causing genetic defects.*

*May cause cancer.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*Use only outdoors or in a well-ventilated area.*

*Contaminated work clothing should not be allowed out of the workplace.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

*IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*

*IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.*

(Contd. on page 10)

## Safety Data Sheet according to WHS Regulations

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 9)

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*

*IF exposed or concerned: Get medical advice/attention.*

*Immediately call a POISON CENTER/doctor.*

*Specific treatment (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*Take off contaminated clothing and wash it before reuse.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I formaldehyde**

- **Seveso category E2 Hazardous to the Aquatic Environment**

- **Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t**

- **Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t**

- **National regulations:**

- **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.*

*Exceptions can be made by the authorities in certain cases.*

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Corr. 1B: Skin corrosion/irritation – Category 1B*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

*Skin Sens. 1: Skin sensitisation – Category 1*

*Muta. 2: Germ cell mutagenicity – Category 2*

*Carc. 1A: Carcinogenicity – Category 1A*

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

## 1 Identification

- **Product identifier**
- **Trade name:** HOLLANDE'S FIXATIVE
- **Article number:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Germ Cell Mutagenicity - Category 2     H341 Suspected of causing genetic defects.  
 Carcinogenicity - Category 1A     H350 May cause cancer.



GHS05 Corrosion

Skin Corrosion - Category 1B     H314 Causes severe skin burns and eye damage.  
 Serious Eye Damage - Category 1     H318 Causes serious eye damage.



GHS07

Acute Toxicity (Oral) - Category 4     H302 Harmful if swallowed.  
 Acute Toxicity (Dermal) - Category 4     H312 Harmful in contact with skin.  
 Acute Toxicity (Inhalation) - Category 4     H332 Harmful if inhaled.  
 Skin Sensitizer - Category 1     H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05



GHS07



GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
formaldehyde  
Acetic Acid Glacial  
cupric acetate  
2,4,6-trinitrophenol
- **Hazard statements**  
Harmful if swallowed, in contact with skin or if inhaled.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 1)

*Causes severe skin burns and eye damage.*

*May cause an allergic skin reaction.*

*Suspected of causing genetic defects.*

*May cause cancer.*

**· Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*Do not breathe dust/fume/gas/mist/vapours/spray.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*Use only outdoors or in a well-ventilated area.*

*Contaminated work clothing should not be allowed out of the workplace.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

*IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.*

*IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*IF exposed or concerned: Get medical advice/attention.*

*Immediately call a POISON CENTER/doctor.*

*Specific measures (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*Take off contaminated clothing and wash it before reuse.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

**· Hazard description:**

**· WHMIS-symbols:**

*D2A - Very toxic material causing other toxic effects*

*E - Corrosive material*



**· Classification system:**

**· NFPA ratings (scale 0 - 4)**



*Health = 3*

*Fire = 0*

*Reactivity = 0*

**· HMIS-ratings (scale 0 - 4)**



*Health = \*4*

*Fire = 0*

*Reactivity = 0*

## 3 Composition/information on ingredients

**· Chemical characterization: Mixtures**

**· Description:** Mixture of the substances listed below with nonhazardous additions.

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 2)

· <b>Dangerous components:</b>		
50-00-0	formaldehyde	10-30% w/w
64-19-7	Acetic Acid Glacial	1-5% w/w
6046-93-1	cupric acetate	1-5% w/w

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**  
Immediately call a doctor.  
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

(Contd. on page 4)

CA



# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 3)

See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.  
 Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

### 50-00-0 formaldehyde

EL	Long-term value: 0.3 ppm Ceiling limit value: 1 ppm ACGIH A2; IARC 1; S
EV	Short-term value: 1.0 ppm
Ceiling limit value	1.5 ppm

### 64-19-7 Acetic Acid Glacial

EL	Short-term value: 15 ppm Long-term value: 10 ppm
EV	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.
- **Breathing equipment:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

(Contd. on page 5)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 4)

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses



Tightly sealed goggles

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Green
<b>Odor:</b>	Recognizable
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	-21 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not flammable.

· **Ignition temperature:** ~300 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

<b>Lower:</b>	7.0 Vol %
<b>Upper:</b>	73.0 Vol %

· **Vapor pressure at 20 °C:** 1.7 hPa

(Contd. on page 6)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 5)

· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	29.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· <b>LD/LC50 values that are relevant for classification:</b>
---

<b>50-00-0 formaldehyde</b>
-----------------------------

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Corrosive  
Irritant  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.  
Carcinogenic.

(Contd. on page 7)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 6)

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

50-00-0 formaldehyde

I

- **NTP (National Toxicology Program)**

50-00-0 formaldehyde

K

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 2 (Self-assessment): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system.  
 Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
 Danger to drinking water if even small quantities leak into the ground.  
 Also poisonous for fish and plankton in water bodies.  
 Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

- **UN-Number**

· **DOT, TDG, IMDG, IATA**

UN1760

- **UN proper shipping name**

· **DOT**

Corrosive liquids, n.o.s. (Acetic acid, glacial, Formaldehyde solutions)

· **TDG**

1760 Corrosive liquids, n.o.s. (Acetic acid, glacial, Formaldehyde solutions), ENVIRONMENTALLY HAZARDOUS

(Contd. on page 8)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 7)

· **IMDG** *CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT*

· **IATA** *CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)*

· **Transport hazard class(es)**· **DOT**

· **Class** 8 Corrosive substances

· **Label** 8

· **TDG, IMDG**



· **Class** 8 Corrosive substances

· **Label** 8

· **IATA**

· **Class** 8 Corrosive substances

· **Label** 8

· **Packing group**· **DOT, TDG, IMDG, IATA** III

· **Environmental hazards:** *Product contains environmentally hazardous substances: cupric acetate*

· **Marine pollutant:** *Symbol (fish and tree)*

· **Special marking (TDG):** *Symbol (fish and tree)*

· **Special precautions for user** *Warning: Corrosive substances*

· **Danger code (Kemler):** 80

· **EMS Number:** F-A,S-B

· **Segregation groups** Acids

· **Stowage Category** A

· **Stowage Code** SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** *Not applicable.*

· **Transport/Additional information:**· **DOT**

· **Quantity limitations** *On passenger aircraft/rail: 5 L*  
*On cargo aircraft only: 60 L*

(Contd. on page 9)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 8)

<ul style="list-style-type: none"> <li>· <b>TDG</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	<p>5L</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 ml</p> <p>Maximum net quantity per outer packaging: 1000 ml</p>
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	<p>UN 1760 CORROSIVE LIQUIDS, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTIONS), 8, III, ENVIRONMENTALLY HAZARDOUS</p>

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

- **Section 355 (extremely hazardous substances):**

50-00-0	formaldehyde
---------	--------------

- **Section 313 (Specific toxic chemical listings):**

50-00-0	formaldehyde
---------	--------------

88-89-1	2,4,6-trinitrophenol
---------	----------------------

- **TSCA (Toxic Substances Control Act):**

50-00-0	formaldehyde
---------	--------------

64-19-7	Acetic Acid Glacial
---------	---------------------

88-89-1	2,4,6-trinitrophenol
---------	----------------------

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

50-00-0	formaldehyde
---------	--------------

64-19-7	Acetic Acid Glacial
---------	---------------------

88-89-1	2,4,6-trinitrophenol
---------	----------------------

- **Canadian Ingredient Disclosure list (limit 0.1%)**

50-00-0	formaldehyde
---------	--------------

- **Canadian Ingredient Disclosure list (limit 1%)**

64-19-7	Acetic Acid Glacial
---------	---------------------

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

GHS07

GHS08

- **Signal word** *Danger*

(Contd. on page 10)

CA

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/22/2017

Reviewed on 06/22/2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 9)

· **Hazard-determining components of labeling:**

formaldehyde  
Acetic Acid Glacial  
cupric acetate  
2,4,6-trinitrophenol

· **Hazard statements**

Harmful if swallowed, in contact with skin or if inhaled.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
Suspected of causing genetic defects.  
May cause cancer.

· **Precautionary statements**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing should not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
**IF SWALLOWED:** Call a POISON CENTER/doctor if you feel unwell.  
**IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.  
**IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**IF exposed or concerned:** Get medical advice/attention.  
Immediately call a POISON CENTER/doctor.  
Specific measures (see on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Wash contaminated clothing before reuse.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.  
Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 06/22/2017 / -

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)

(Contd. on page 11)

CA

**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 06/22/2017

Reviewed on 06/22/2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 10)

*HMIS: Hazardous Materials Identification System (USA)**WHMIS: Workplace Hazardous Materials Information System (Canada)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative*

CA



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** HOLLANDE'S FIXATIVE
- **Article number:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Muta. 2                    H341 Suspected of causing genetic defects.  
Carc. 1B                    H350 May cause cancer.



GHS05 corrosion

Skin Corr. 1B            H314 Causes severe skin burns and eye damage.  
Eye Dam. 1              H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2    H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4              H302 Harmful if swallowed.  
Acute Tox. 4              H312 Harmful in contact with skin.  
Acute Tox. 4              H332 Harmful if inhaled.  
Skin Sens. 1              H317 May cause an allergic skin reaction.  
STOT SE 3                H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 1)

· **Hazard pictograms**

GHS05 GHS07 GHS08 GHS09

· **Signal word** *Danger*· **Hazard-determining components of labelling:**

formaldehyde  
Acetic Acid Glacial  
cupric acetate  
2,4,6-trinitrophenol

· **Hazard statements**

H302+H312+H332 *Harmful if swallowed, in contact with skin or if inhaled.*  
H314 *Causes severe skin burns and eye damage.*  
H317 *May cause an allergic skin reaction.*  
H341 *Suspected of causing genetic defects.*  
H350 *May cause cancer.*  
H335 *May cause respiratory irritation.*  
H411 *Toxic to aquatic life with long lasting effects.*

· **Precautionary statements**

P303+P361+P353 *IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*  
P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
P310 *Immediately call a POISON CENTER/doctor.*  
P321 *Specific treatment (see on this label).*  
P405 *Store locked up.*  
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **2.3 Other hazards**· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 50-00-0 EINECS: 200-001-8	formaldehyde ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ⚠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1, H317	10-25%
CAS: 64-19-7 EINECS: 200-580-7	Acetic Acid Glacial ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	2.5-10%
CAS: 6046-93-1 EINECS: 205-553-3	cupric acetate ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2.5%

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 2)

CAS: 88-89-1  
EINECS: 201-865-92,4,6-trinitrophenol  
Exp. 1.1, H201; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331

≤ 2.5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures**· **4.1 Description of first aid measures**· **General information:***Immediately remove any clothing soiled by the product.**Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*· **After inhalation:***Supply fresh air and to be sure call for a doctor.**In case of unconsciousness place patient stably in side position for transportation.*· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*· **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*· **After swallowing:***Call for a doctor immediately.**Drink plenty of water and provide fresh air. Call for a doctor immediately.*· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*· **4.3 Indication of any immediate medical attention and special treatment needed***No further relevant information available.***SECTION 5: Firefighting measures**· **5.1 Extinguishing media**· **Suitable extinguishing agents:** *Use fire extinguishing methods suitable to surrounding conditions.*· **5.2 Special hazards arising from the substance or mixture** *No further relevant information available.*· **5.3 Advice for firefighters**· **Protective equipment:** *Mouth respiratory protective device.***SECTION 6: Accidental release measures**· **6.1 Personal precautions, protective equipment and emergency procedures***Wear protective equipment. Keep unprotected persons away.*· **6.2 Environmental precautions:***Inform respective authorities in case of seepage into water course or sewage system.**Dilute with plenty of water.**Do not allow to enter sewers/ surface or ground water.*· **6.3 Methods and material for containment and cleaning up:***Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).**Use neutralising agent.**Dispose contaminated material as waste according to item 13.**Ensure adequate ventilation.*· **6.4 Reference to other sections***See Section 7 for information on safe handling.**See Section 8 for information on personal protection equipment.**See Section 13 for disposal information.*

GB

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 3)

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

<b>50-00-0 formaldehyde</b>	
WEL	Short-term value: 2.5 mg/m <sup>3</sup> , 2 ppm Long-term value: 2.5 mg/m <sup>3</sup> , 2 ppm
<b>88-89-1 2,4,6-trinitrophenol</b>	
WEL	Short-term value: 0.3 mg/m <sup>3</sup> Long-term value: 0.1 mg/m <sup>3</sup>

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 4)

**· Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**· Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**· Eye protection:**

Safety glasses



Tightly sealed goggles

### SECTION 9: Physical and chemical properties

**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Green
<b>· Odour:</b>	Recognisable
<b>· Odour threshold:</b>	Not determined.

**· pH-value:** Not determined.

**· Change in condition**

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	-21 °C

**· Flash point:** Not applicable.

**· Flammability (solid, gas):** Not applicable.

**· Ignition temperature:** ~300 °C

**· Decomposition temperature:** Not determined.

**· Auto-ignition temperature:** Product is not selfigniting.

**· Explosive properties:** Product does not present an explosion hazard.

**· Explosion limits:**

<b>Lower:</b>	7.0 Vol %
<b>Upper:</b>	73.0 Vol %

**· Vapour pressure at 20 °C:** 1.7 hPa

**· Density:** Not determined.

**· Relative density** Not determined.

**· Vapour density** Not determined.

**· Evaporation rate** Not determined.

**· Solubility in / Miscibility with water:**

Fully miscible.

**· Partition coefficient: n-octanol/water:** Not determined.

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 5)

- |                                |  |
|--------------------------------|--|
| · <b>Viscosity:</b>            |  |
| <b>Dynamic:</b>                | Not determined.                            |
| <b>Kinematic:</b>              | Not determined.                            |
| · <b>Solvent content:</b>      |  |
| <b>Organic solvents:</b>       | 29.0 %                                     |
| <b>VOC (EC)</b>                | 29.00 %                                    |
| · <b>9.2 Other information</b> | No further relevant information available. |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
  - **Acute toxicity**  
Harmful if swallowed, in contact with skin or if inhaled.
- |  |                       |
|--|-----------------------|
| · <b>LD/LC50 values relevant for classification:</b> |                       |
| 50-00-0 formaldehyde                                 |                       |
| Oral   | LD50 >200 mg/kg (rat) |
- **Primary irritant effect:**
  - **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
  - **Serious eye damage/irritation**  
Causes serious eye damage.
  - **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - **Germ cell mutagenicity**  
Suspected of causing genetic defects.
  - **Carcinogenicity**  
May cause cancer.
  - **Reproductive toxicity** Based on available data, the classification criteria are not met.
  - **STOT-single exposure**  
May cause respiratory irritation.
  - **STOT-repeated exposure** Based on available data, the classification criteria are not met.
  - **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.

(Contd. on page 7)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**


(Contd. of page 6)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

- |   |  |
|---|--|
| · <b>14.1 UN-Number</b>   | UN1760   |
| · <b>ADR, IMDG, IATA</b>  |  |
| · <b>14.2 UN proper shipping name</b>   | 1760 CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), ENVIRONMENTALLY HAZARDOUS |
| · <b>ADR</b>  |  |
| · <b>IMDG</b>   | CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT               |
| · <b>IATA</b>   | CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)                                 |
| · <b>14.3 Transport hazard class(es)</b>  |  |
| · <b>ADR, IMDG</b>  |  |
|  |  |
| · <b>Class</b>  | 8 Corrosive substances.  |

(Contd. on page 8)

GB


**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

Trade name: **HOLLANDE'S FIXATIVE**

(Contd. of page 7)

· <b>Label</b>	8
· <b>IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	Product contains environmentally hazardous substances: cupric acetate
· <b>Marine pollutant:</b>	Symbol (fish and tree)
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>14.6 Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Segregation groups</b> · <b>Stowage Category</b> · <b>Stowage Code</b>	Warning: Corrosive substances. 80 F-A,S-B Acids A SW2 Clear of living quarters.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>Transport category</b> · <b>Tunnel restriction code</b>	3 E
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1760 CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), 8, III, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I formaldehyde
- Seveso category E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t

(Contd. on page 9)

GB



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 22.06.2017

Revision: 22.06.2017

**Trade name: HOLLANDE'S FIXATIVE**

(Contd. of page 8)

- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Information about limitation of use:**  
*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.*
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Relevant phrases**

- H201 Explosive; mass explosion hazard.*
- H226 Flammable liquid and vapour.*
- H301 Toxic if swallowed.*
- H302 Harmful if swallowed.*
- H311 Toxic in contact with skin.*
- H312 Harmful in contact with skin.*
- H314 Causes severe skin burns and eye damage.*
- H315 Causes skin irritation.*
- H317 May cause an allergic skin reaction.*
- H319 Causes serious eye irritation.*
- H331 Toxic if inhaled.*
- H335 May cause respiratory irritation.*
- H341 Suspected of causing genetic defects.*
- H350 May cause cancer.*
- H400 Very toxic to aquatic life.*
- H410 Very toxic to aquatic life with long lasting effects.*

- **Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*
- IMDG: International Maritime Code for Dangerous Goods*
- IATA: International Air Transport Association*
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals*
- EINECS: European Inventory of Existing Commercial Chemical Substances*
- ELINCS: European List of Notified Chemical Substances*
- CAS: Chemical Abstracts Service (division of the American Chemical Society)*
- VOC: Volatile Organic Compounds (USA, EU)*
- LC50: Lethal concentration, 50 percent*
- LD50: Lethal dose, 50 percent*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Expl. 1.1: Explosives – Division 1.1*
- Flam. Liq. 3: Flammable liquids – Category 3*
- Acute Tox. 3: Acute toxicity – Category 3*
- Acute Tox. 4: Acute toxicity – Category 4*
- Skin Corr. 1A: Skin corrosion/irritation – Category 1A*
- Skin Corr. 1B: Skin corrosion/irritation – Category 1B*
- Skin Irrit. 2: Skin corrosion/irritation – Category 2*
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1*
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*
- Skin Sens. 1: Skin sensitisation – Category 1*
- Muta. 2: Germ cell mutagenicity – Category 2*
- Carc. 1B: Carcinogenicity – Category 1B*
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*
- Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

## RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam:** HOLLANDE'S FIXATIVE
- **Artikelnummer:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Aurion  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



GHS08 gezondheidsgevaar

Muta. 2                    H341 Verdacht van het veroorzaken van genetische schade.  
Carc. 1B                    H350 Kan kanker veroorzaken.



GHS05 corrosie

Skin Corr. 1B            H314 Veroorzaakt ernstige brandwonden en oogletsel.  
Eye Dam. 1              H318 Veroorzaakt ernstig oogletsel.



GHS09 milieu

Aquatic Chronic 2 H411 Giftig voor in het water levende organismen, met langdurige gevolgen.



GHS07

Acute Tox. 4              H302 Schadelijk bij inslikken.  
Acute Tox. 4              H312 Schadelijk bij contact met de huid.  
Acute Tox. 4              H332 Schadelijk bij inademing.  
Skin Sens. 1              H317 Kan een allergische huidreactie veroorzaken.  
STOT SE 3                H335 Kan irritatie van de luchtwegen veroorzaken.

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

**Handelsnaam: HOLLANDE'S FIXATIVE**

(Vervolg van blz. 1)

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**  
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.
- **Gevarenpictogrammen**



GHS05 GHS07 GHS08 GHS09

- **Signaalwoord** Gevaar
- **Gevaaraanduidende componenten voor de etikettering:**  
formaldehyde  
azijnzuur  
cupric acetate  
2,4,6-trinitrofenol
- **Gevaarenaanduidingen**  
H302+H312+H332 Schadelijk bij inslikken, bij contact met de huid en bij inademing.  
H314 Veroorzaakt ernstige brandwonden en oogletsel.  
H317 Kan een allergische huidreactie veroorzaken.  
H341 Verdacht van het veroorzaken van genetische schade.  
H350 Kan kanker veroorzaken.  
H335 Kan irritatie van de luchtwegen veroorzaken.  
H411 Giftig voor in het water levende organismen, met langdurige gevolgen.
- **Veiligheidsaanbevelingen**  
P303+P361+P353 BIJ CONTACT MET DE HUID (of het haar): verontreinigde kleding onmiddellijk uittrekken. Huid met water afspoelen/afdouchen.  
P305+P351+P338 BIJ CONTACT MET DE OGEN: voorzichtig afspoelen met water gedurende een aantal minuten; contactlenzen verwijderen, indien mogelijk; blijven spoelen.  
P310 Onmiddellijk een ANTIGIFCENTRUM/arts raadplegen.  
P321 Specifieke behandeling vereist (zie op dit etiket).  
P405 Achter slot bewaren.  
P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.
- **2.3 Andere gevaren**
- **Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.

### RUBRIEK 3: Samenstelling en informatie over de bestanddelen

- **3.2 Chemische karakterisering: Mengsels**
- **Beschrijving:** Mengsel van na elkaar aangevoerde stoffen met onveerbarelijke bijmengingen.

#### · Gevaarlijke inhoudstoffen:

CAS: 50-00-0 EINECS: 200-001-8	formaldehyde ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Muta. 2, H341; Carc. 1B, H350; ⚠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1, H317	10-25%
CAS: 64-19-7 EINECS: 200-580-7	azijnzuur ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	2,5-10%

(Vervolg op blz. 3)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

**Handelsnaam: HOLLANDE'S FIXATIVE**

(Vervolg van blz. 2)

CAS: 6046-93-1 EINECS: 205-553-3	cupric acetate ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2,5%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrofenol ⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤ 2,5%

**· Aanvullende gegevens:**

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

### RUBRIEK 4: Eerstehulpmaatregelen

**· 4.1 Beschrijving van de eerstehulpmaatregelen**

**· Algemene informatie:**

Verontreinigde kleding onmiddellijk uittrekken.

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

**· Na het inademen:**

Veel verse lucht toedienen en voor alle zekerheid een arts raadplegen.

Bij bewusteloosheid ligging en vervoer in stabiele zijligging.

**· Na huidcontact:** Onmiddellijk met water en zeep afwassen en goed naspoelen.

**· Na oogcontact:** Ogen met open ooglid een aantal minuten onder stromend water afspoelen en dokter raadplegen.

**· Na inslikken:**

Onmiddellijk arts raadplegen.

Drink zeer veel water en voer verse lucht aan. Onmiddellijk een dokter waarschuwen.

**· 4.2 Belangrijkste acute en uitgestelde symptomen en effecten** Geen verdere relevante informatie verkrijgbaar.

**· 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling**

Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 5: Brandbestrijdingsmaatregelen

**· 5.1 Blusmiddelen**

**· Geschikte blusmiddelen:** Brandblusmaatregelen op omgeving afstemmen.

**· 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt**

Geen verdere relevante informatie verkrijgbaar.

**· 5.3 Advies voor brandweertieners**

**· Speciale beschermende kleding:** Ademhalingsstoestel aantrekken.

### RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

**· 6.1 Persoonlijke voorzorgsmaatregelen, beschermde uitrusting en noodprocedures**

Beschermende kleding aantrekken. Niet beschermde personen op afstand houden.

**· 6.2 Milieuvoorzorgsmaatregelen:**

Bij indringen in afvalwater of riolering moet de bevoegde instantie gewaarschuwd worden.

Met veel water verdunnen.

Niet in de riolering/het oppervlaktewater/het grondwater laten terechtkomen.

**· 6.3 Insluitings- en reinigingsmethoden en -materiaal:**

Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.

Neutralisatiemiddel gebruiken.

Besmet materiaal zoals afval volgens punt 13 verwijderen.

Voor voldoende ventilatie zorgen.

(Vervolg op blz. 4)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

**Handelsnaam: HOLLANDE'S FIXATIVE**

(Vervolg van blz. 3)

**· 6.4 Verwijzing naar andere rubrieken**

Informatie inzake veilig gebruik - zie hoofdstuk 7.

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.

Informatie inzake berging - zie hoofdstuk 13.

**RUBRIEK 7: Hantering en opslag****· 7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**

Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.

Tanks voorzichtig openen en behandelen.

Aërosolvorming vermijden.

**· Informatie m.b.t. brand- en ontploffingsgevaar:** Ademhalingstoestellen gereedhouden.**· 7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten****· Opslag:****· Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.**· Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.**· Verdere inlichtingen over eisen m.b.t. de opslag:** Tanks ondoordringbaar gesloten houden.**· 7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.**RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming****· Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.**· 8.1 Controleparameters****· Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:****50-00-0 formaldehyde**WGW Korte termijn waarde: 0,5 mg/m<sup>3</sup>, 0,4 ppmLange termijn waarde: 0,15 mg/m<sup>3</sup>, 0,1 ppm**64-19-7 azijnzuur**WGW Lange termijn waarde: 25 mg/m<sup>3</sup>, 10 ppm**88-89-1 2,4,6-trinitrofenol**WGW Lange termijn waarde: 0,1 mg/m<sup>3</sup>**· Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.**· 8.2 Maatregelen ter beheersing van blootstelling****· Persoonlijke beschermingsvoorzieningen:****· Algemene beschermings- en gezondheidsmaatregelen:**

Verwijderd houden van eet- en drinkwaren.

Verontreinigde kleding onmiddellijk uittrekken.

Vóór de pauze en aan het einde van werktijd handen wassen.

Beschermende kleding afzonderlijk bewaren.

Aanraking met de ogen vermijden.

Aanraking met de ogen en de huid vermijden.

**· Ademhalingsbescherming:**

Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingstoestel gebruiken.

(Vervolg op blz. 5)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

**Handelsnaam: HOLLANDE'S FIXATIVE**

(Vervolg van blz. 4)

**· Handbescherming:**

Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.  
Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliën mengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

**· Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór het gebruik worden getest.

**· Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

**· Oogbescherming:**

Veiligheidsbril



Nauw aansluitende veiligheidsbril

## RUBRIEK 9: Fysische en chemische eigenschappen

**· 9.1 Informatie over fysische en chemische basiseigenschappen****· Algemene gegevens****· Voorkomen:**

<b>Vorm:</b>	Vloeistof
<b>Kleur:</b>	Groen
<b>Geur:</b>	Waarneembaar
<b>Geurdrempelwaarde:</b>	Niet bepaald.

**· pH-waarde:** Niet bepaald.

**· Toestandsverandering**

<b>Smelt-/vriespunt:</b>	Niet bepaald.
<b>Beginkookpunt en kooktraject:</b>	-21 °C

**· Vlampunt:** Niet bruikbaar.

**· Ontvlambaarheid (vast, gas):** Niet bruikbaar.

**· Ontstekingstemperatuur:** ~300 °C

**· Ontledingstemperatuur:** Niet bepaald.

**· Zelfontbrandingstemperatuur:** Het produkt ontbrandt niet uit zichzelf.

**· Ontploffingseigenschappen:** Het produkt is niet ontploffingsgevaarlijk.

**· Ontploffingsgrenzen:**

<b>Onderste:</b>	7,0 Vol %
<b>Bovenste:</b>	73,0 Vol %

**· Dampspanning bij 20 °C:** 1,7 hPa

(Vervolg op blz. 6)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

**Handelsnaam: HOLLANDE'S FIXATIVE**

(Vervolg van blz. 5)

- |   |   |
|---|---|
| · <b>Dichtheid:</b>                               | Niet bepaald.                                   |
| · <b>Relatieve dichtheid</b>                      | Niet bepaald.                                   |
| · <b>Dampdichtheid</b>                            | Niet bepaald.                                   |
| · <b>Verdampingsnelheid</b>                       | Niet bepaald.                                   |
| · <b>Oplosbaarheid in/mengbaarheid met Water:</b> | Volledig mengbaar.                              |
| · <b>Verdelingscoëfficiënt: n-octanol/water:</b>  | Niet bepaald.                                   |
| · <b>Viscositeit</b>                              |   |
| <b>Dynamisch:</b>                                 | Niet bepaald.                                   |
| <b>Kinematisch:</b>                               | Niet bepaald.                                   |
| · <b>Oplosmiddelgehalte:</b>                      |   |
| <b>Organisch oplosmiddel:</b>                     | 29,0 %  |
| <b>VOC (EG)</b>                                   | 29,00 %   |
| · <b>9.2 Overige informatie</b>                   | Geen verdere relevante informatie verkrijgbaar. |

## RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

## RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
  - **Acute toxiciteit**  
Schadelijk bij inslikken, bij contact met de huid en bij inademing.
  - **Indelingsrelevantie LD/LC50-waarden:**
- |                             |      |                  |
|-----------------------------|------|------------------|
| <b>50-00-0 formaldehyde</b> |      |                  |
| Oraal                       | LD50 | >200 mg/kg (rat) |
- **Primaire aandoening:**
  - **Huidcorrosie/-irritatie**  
Veroorzaakt ernstige brandwonden en oogletsel.
  - **Ernstig oogletsel/oogirritatie**  
Veroorzaakt ernstig oogletsel.
  - **Sensibilisatie van de luchtwegen/de huid**  
Kan een allergische huidreactie veroorzaken.
  - **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
  - **Mutageniteit in geslachtscellen**  
Verdacht van het veroorzaken van genetische schade.
  - **Kankerverwekkendheid**  
Kan kanker veroorzaken.
  - **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
  - **STOT bij eenmalige blootstelling**  
Kan irritatie van de luchtwegen veroorzaken.

(Vervolg op blz. 7)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

Handelsnaam: **HOLLANDE'S FIXATIVE**

(Vervolg van blz. 6)

- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

## RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Ecotoxische effecten:**
- **Opmerking:** Giftig voor vissen.
- **Verdere ecologische informatie:**
- **Algemene informatie:**  
Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)  
Gevaar voor water klasse 2 (D) (Zelfclassificatie): gevaar voor water  
Niet lozen in grondwater, in oppervlaktewater of in riolering.  
Mag niet onverdund of niet geneutraliseerd in oppervlaktewater of in afwateringskanaal geloosd worden.  
Gevaar voor drinkwater zelfs bij uitlopen van geringe hoeveelheden in de ondergrond.  
In oppervlaktewater ook giftig voor vissen en plankton.  
giftig voor in het water levende organismen
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.
- **Niet gereinigde verpakkingen:**
- **Aanbeveling:** Afvalverwijdering volgens overheidsbepalingen.
- **Aanbevolen reinigingsmiddel:** Water, eventueel met toevoeging van reinigingsmiddelen.

## RUBRIEK 14: Informatie met betrekking tot het vervoer

- **14.1 VN-nummer**
- **ADR, IMDG, IATA** UNI760
- **14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN**
- **ADR** 1760 BIJTENDE VLOEISTOF, N.E.G. (IJSAZIJN, FORMALDEHYDE, OPLOSSING), MILIEUGEVAARLIJK
- **IMDG** CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT
- **IATA** CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)

(Vervolg op blz. 8)



# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

Handelsnaam: **HOLLANDE'S FIXATIVE**

(Vervolg van blz. 7)

· **14.3 Transportgevaarklasse(n)**

· **ADR, IMDG**



· **klasse** 8 Bijtende stoffen  
 · **Etiket** 8

· **IATA**



· **Class** 8 Bijtende stoffen  
 · **Label** 8

· **14.4 Verpakkingsgroep:**

· **ADR, IMDG, IATA** III

· **14.5 Milieugevaren:**

· **Marine pollutant:** Produkt bevat milieugevaarlijke stoffen: cupric acetate  
 · **Bijzondere kenmerking (ADR):** Symbool (vis en boom)

· **14.6 Bijzondere voorzorgen voor de gebruiker**

· **Kemler-getal:** Waarschuwing: Bijtende stoffen  
 80  
 · **EMS-nummer:** F-A,S-B  
 · **Segregation groups** Acids  
 · **Stowage Category** A  
 · **Stowage Code** SW2 Clear of living quarters.

· **14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code**

Niet bruikbaar.

· **Transport/verdere gegevens:**

· **ADR**

· **Beperkte hoeveelheden (LQ)** 5L  
 · **Uitgezonderde hoeveelheden (EQ)** Code: E1  
 Grootste netto hoeveelheid per binnenverpakking: 30 ml  
 Grootste netto hoeveelheid per buitenverpakking: 1000 ml  
 · **Vervoerscategorie** 3  
 · **Tunnelbeperkingscode** E

· **IMDG**

· **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

· **VN "Model Regulation":**

UN 1760 BIJTENDE VLOEISTOF, N.E.G. (IJSAZIJN, FORMALDEHYDE, OPLOSSING), 8, III, MILIEUGEVAARLIJK

NL

(Vervolg op blz. 9)

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

Handelsnaam: **HOLLANDE'S FIXATIVE**

(Vervolg van blz. 8)

## RUBRIEK 15: Regelgeving

### · 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel

#### · SZW-lijst van kankerverwekkende stoffen

50-00-0 formaldehyde

#### · SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

#### · NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid

geen der bestanddelen staat op de lijst.

#### · NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

geen der bestanddelen staat op de lijst.

#### · NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding

geen der bestanddelen staat op de lijst.

#### · Richtlijn 2012/18/EU

#### · Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I formaldehyde

#### · Seveso-categorie E2 Gevaar voor het aquatisch milieu

#### · Drempelwaarde (ton) voor toepassing van voorschriften voor lagedrempelinrichtingen 200 t

#### · Drempelwaarde (ton) voor toepassing van voorschriften voor hogedrempelinrichtingen 500 t

#### · Verordening (EG) nr. 1907/2006 BIJLAGE XVII Beperkingsvoorwaarden: 3

#### · Nationale voorschriften:

#### · Aanwijzingen m.b.t. tewerkstellingsbeperking:

Werknemers mogen aan de kankerverwekkende gevaarlijke stoffen van deze toebereiding niet blootgesteld worden. In uitzonderingsgevallen kan de overheid speciale vergunningen afgeven.

#### · Gevaarklasse v. water:

Waterbezwaarlijkheid (NL): Z(1) niet afbreekbare stoffen met gevaarlijke eigenschappen voor mens en milieu (carcinogeniteit/mutageniteit/ reprotoxiciteit/bioaccumulerend vermogen/ toxiciteit of persistentie)

#### · 15.2 Chemischeveiligheidsbeoordeling: Een chemische veiligheidsbeoordeling is niet uitgevoerd.

## RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van produkteigenschappen en vestigen geen contractuele rechtsbetrekking.

#### · Relevante zinnen

H201 Ontploffbare stof; gevaar voor massa-explosie.

H226 Ontvlambare vloeistof en damp.

H301 Giftig bij inslikken.

H302 Schadelijk bij inslikken.

H311 Giftig bij contact met de huid.

H312 Schadelijk bij contact met de huid.

H314 Veroorzaakt ernstige brandwonden en oogletsel.

H315 Veroorzaakt huidirritatie.

H317 Kan een allergische huidreactie veroorzaken.

H319 Veroorzaakt ernstige oogirritatie.

H331 Giftig bij inademing.

H335 Kan irritatie van de luchtwegen veroorzaken.

H341 Verdacht van het veroorzaken van genetische schade.

H350 Kan kanker veroorzaken.

H400 Zeer giftig voor in het water levende organismen.

(Vervolg op blz. 10)

**Veiligheidsinformatieblad**  
**volgens 1907/2006/EG, Artikel 31**

datum van de druk: 22.06.2017

Herziening van: 22.06.2017

**Handelsnaam: HOLLANDE'S FIXATIVE**

(Vervolg van blz. 9)

*H410 Zeer giftig voor in het water levende organismen, met langdurige gevolgen.*

**Afkortingen en acroniemen:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Expl. 1.1: Ontploffbare stoffen – Subklasse 1.1*

*Flam. Liq. 3: Ontvlambare vloeistoffen – Categorie 3*

*Acute Tox. 3: Acute toxiciteit – Categorie 3*

*Acute Tox. 4: Acute toxiciteit – Categorie 4*

*Skin Corr. 1A: Huidcorrosie/-irritatie – Categorie 1A*

*Skin Corr. 1B: Huidcorrosie/-irritatie – Categorie 1B*

*Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2*

*Eye Dam. 1: Ernstig oogletsel/oogirritatie – Categorie 1*

*Eye Irrit. 2: Ernstig oogletsel/oogirritatie – Categorie 2*

*Skin Sens. 1: Sensibilisatie van de huid – Categorie 1*

*Muta. 2: Mutageniteit in geslachtscellen – Categorie 2*

*Carc. 1B: Kankerverwekkendheid – Categorie 1B*

*STOT SE 3: Specifieke doelorgaantoxiciteit bij eenmalige blootstelling – Categorie 3*

*Aquatic Acute 1: Gevaar voor het aquatisch milieu - acuut aquatisch gevaar – Categorie 1*

*Aquatic Chronic 1: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 1*

*Aquatic Chronic 2: Gevaar voor het aquatisch milieu - aquatisch gevaar op lange termijn – Categorie 2*

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

### RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit:** HOLLANDE'S FIXATIVE
- **Code du produit:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS08 danger pour la santé

Muta. 2                    H341 Susceptible d'induire des anomalies génétiques.  
Carc. 1B                 H350 Peut provoquer le cancer.



GHS05 corrosion

Skin Corr. 1B          H314 Provoque des brûlures de la peau et des lésions oculaires graves.  
Eye Dam. 1            H318 Provoque des lésions oculaires graves.



GHS09 environnement

Aquatic Chronic 2 H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.



GHS07

Acute Tox. 4            H302 Nocif en cas d'ingestion.  
Acute Tox. 4            H312 Nocif par contact cutané.  
Acute Tox. 4            H332 Nocif par inhalation.  
Skin Sens. 1            H317 Peut provoquer une allergie cutanée.  
STOT SE 3              H335 Peut irriter les voies respiratoires.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.

(suite page 2)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

Nom du produit: **HOLLANDE'S FIXATIVE**

(suite de la page 1)

· **Pictogrammes de danger**

GHS05   GHS07   GHS08   GHS09

· **Mention d'avertissement Danger**· **Composants dangereux déterminants pour l'étiquetage:**

Formaldéhyde  
acide acétique  
cupric acetate  
2,4,6-trinitrophénol

· **Mentions de danger**

H302+H312+H332 Nocif en cas d'ingestion, de contact cutané ou d'inhalation.  
H314 Provoque des brûlures de la peau et des lésions oculaires graves.  
H317 Peut provoquer une allergie cutanée.  
H341 Susceptible d'induire des anomalies génétiques.  
H350 Peut provoquer le cancer.  
H335 Peut irriter les voies respiratoires.  
H411 Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.

· **Conseils de prudence**

P303+P361+P353 EN CAS DE CONTACT AVEC LA PEAU (ou les cheveux): Enlever immédiatement tous les vêtements contaminés. Rincer la peau à l'eau/Se doucher.  
P305+P351+P338 EN CAS DE CONTACT AVEC LES YEUX: rincer avec précaution à l'eau pendant plusieurs minutes. Enlever les lentilles de contact si la victime en porte et si elles peuvent être facilement enlevées. Continuer à rincer.  
P310 Appeler immédiatement un CENTRE ANTIPOISON/un médecin.  
P321 Traitement spécifique (voir sur cette étiquette).  
P405 Garder sous clef.  
P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

· **2.3 Autres dangers**· **Résultats des évaluations PBT et vPvB**

- **PBT:** Non applicable.
- **vPvB:** Non applicable.

### RUBRIQUE 3: Composition/informations sur les composants

· **3.2 Caractérisation chimique: Mélanges**· **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.· **Composants dangereux:**

CAS: 50-00-0 EINECS: 200-001-8	Formaldéhyde Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Muta. 2, H341; Carc. 1B, H350; Skin Corr. 1B, H314; Skin Sens. 1, H317	10-25%
CAS: 64-19-7 EINECS: 200-580-7	acide acétique Flam. Liq. 3, H226; Skin Corr. 1A, H314; Acute Tox. 4, H312	2,5-10%

(suite page 3)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

		(suite de la page 2)
CAS: 6046-93-1 EINECS: 205-553-3	cupric acetate ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2,5%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrophénol ⚠ Expl. 1.1, H201; ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤ 2,5%

· **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

### RUBRIQUE 4: Premiers secours

· **4.1 Description des premiers secours**

· **Remarques générales:**

Enlever immédiatement les vêtements contaminés par le produit.

Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.

· **Après inhalation:**

Donner de l'air frais en abondance et consulter un médecin pour plus de sécurité.

En cas d'inconscience, coucher et transporter la personne en position latérale stable.

· **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.

· **Après contact avec les yeux:**

Rincer les yeux, pendant plusieurs minutes, sous l'eau courante en écartant bien les paupières et consulter un médecin.

· **Après ingestion:**

Consulter immédiatement un médecin.

Boire de l'eau en abondance et donner de l'air frais. Consulter immédiatement un médecin.

· **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.

· **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**

Pas d'autres informations importantes disponibles.

### RUBRIQUE 5: Mesures de lutte contre l'incendie

· **5.1 Moyens d'extinction**

· **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.

· **5.2 Dangers particuliers résultant de la substance ou du mélange**

Pas d'autres informations importantes disponibles.

· **5.3 Conseils aux pompiers**

· **Équipement spécial de sécurité:** Porter un appareil de protection respiratoire.

### RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

· **6.1 Précautions individuelles, équipement de protection et procédures d'urgence**

Porter un équipement de sécurité. Eloigner les personnes non protégées.

· **6.2 Précautions pour la protection de l'environnement:**

En cas de pénétration dans les eaux ou les égouts, avertir les autorités compétentes.

Diluer avec beaucoup d'eau.

Ne pas rejeter dans les canalisations, dans les eaux de surface et dans les nappes d'eau souterraines.

· **6.3 Méthodes et matériel de confinement et de nettoyage:**

Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).

Utiliser un neutralisant.

Evacuer les matériaux contaminés en tant que déchets conformément au point 13.

(suite page 4)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

(suite de la page 3)

Assurer une aération suffisante.

· **6.4 Référence à d'autres rubriques**

Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.

Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

### RUBRIQUE 7: Manipulation et stockage

· **7.1 Précautions à prendre pour une manipulation sans danger**

Veiller à une bonne ventilation/aspiration du poste de travail.

Ouvrir et manipuler les récipients avec précaution.

Eviter la formation d'aérosols.

· **Préventions des incendies et des explosions:** Tenir des appareils de protection respiratoire prêts.

· **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**

· **Stockage:**

· **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.

· **Indications concernant le stockage commun:** Pas nécessaire.

· **Autres indications sur les conditions de stockage:** Tenir les emballages hermétiquement fermés.

· **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

### RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

· **Indications complémentaires pour l'agencement des installations techniques:**

Sans autre indication, voir point 7.

· **8.1 Paramètres de contrôle**

· **Composants présentant des valeurs-seuil à surveiller par poste de travail:**

**50-00-0 Formaldéhyde**

VME	Valeur momentanée: 1 ppm Valeur à long terme: 0,5 ppm C1B, M2
-----	---

**64-19-7 acide acétique**

VME	Valeur momentanée: 25 mg/m <sup>3</sup> , 10 ppm
-----	--

**88-89-1 2,4,6-trinitrophénol**

VME	Valeur à long terme: 0,1 mg/m <sup>3</sup> Risque de pénétration percutanée
-----	--

· **Remarques supplémentaires:**

Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.

· **8.2 Contrôles de l'exposition**

· **Equipement de protection individuel:**

· **Mesures générales de protection et d'hygiène:**

Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.

Retirer immédiatement les vêtements souillés ou humectés.

Se laver les mains avant les pauses et en fin de travail.

Conserver à part les vêtements de protection.

Eviter tout contact avec les yeux.

Eviter tout contact avec les yeux et avec la peau.

· **Protection respiratoire:**

En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.

(suite page 5)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

(suite de la page 4)

· **Protection des mains:**



Gants de protection

Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.  
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.

Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.

· **Matériau des gants**

Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

· **Temps de pénétration du matériau des gants**

Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.

· **Protection des yeux:**

Lunettes de protection



Lunettes de protection hermétiques

### RUBRIQUE 9: Propriétés physiques et chimiques

· **9.1 Informations sur les propriétés physiques et chimiques essentielles**

· **Indications générales**

· **Aspect:**

Forme: Liquide

Couleur: Vert

· **Odeur:** Reconnaissable

· **Seuil olfactif:** Non déterminé.

· **valeur du pH:** Non déterminé.

· **Changement d'état**

Point de fusion/point de congélation: Non déterminé.

Point initial d'ébullition et intervalle d'ébullition: -21 °C

· **Point d'éclair** Non applicable.

· **Inflammabilité (solide, gaz):** Non applicable.

· **Température d'inflammation:** ~300 °C

· **Température de décomposition:** Non déterminé.

· **Température d'auto-inflammabilité:** Le produit ne s'enflamme pas spontanément.

· **Propriétés explosives:** Le produit n'est pas explosif.

· **Limites d'explosion:**

Inférieure: 7,0 Vol %

Supérieure: 73,0 Vol %

· **Pression de vapeur à 20 °C:** 1,7 hPa

(suite page 6)



# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

(suite de la page 5)

· <b>Densité:</b>	Non déterminée.
· <b>Densité relative</b>	Non déterminé.
· <b>Densité de vapeur:</b>	Non déterminé.
· <b>Taux d'évaporation:</b>	Non déterminé.
· <b>Solubilité dans/miscibilité avec l'eau:</b>	Entièrement miscible
· <b>Coefficient de partage: n-octanol/eau:</b>	Non déterminé.
· <b>Viscosité:</b>	
<b>Dynamique:</b>	Non déterminé.
<b>Cinématique:</b>	Non déterminé.
· <b>Teneur en solvants:</b>	
<b>Solvants organiques:</b>	29,0 %
<b>VOC (CE)</b>	29,00 %
· <b>9.2 Autres informations</b>	Pas d'autres informations importantes disponibles.

### RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
  - **Toxicité aiguë**  
Nocif en cas d'ingestion, de contact cutané ou d'inhalation.
  - **Valeurs LD/LC50 déterminantes pour la classification:**
- |                             |      |                  |
|-----------------------------|------|------------------|
| <b>50-00-0 Formaldéhyde</b> |      |                  |
| Oral                        | LD50 | >200 mg/kg (rat) |
- **Effet primaire d'irritation:**
  - **Corrosion cutanée/irritation cutanée**  
Provoque des brûlures de la peau et des lésions oculaires graves.
  - **Lésions oculaires graves/irritation oculaire**  
Provoque des lésions oculaires graves.
  - **Sensibilisation respiratoire ou cutanée**  
Peut provoquer une allergie cutanée.
  - **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
  - **Mutagénicité sur les cellules germinales**  
Susceptible d'induire des anomalies génétiques.
  - **Cancérogénicité**  
Peut provoquer le cancer.
  - **Toxicité pour la reproduction**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

(suite page 7)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

(suite de la page 6)

- **Toxicité spécifique pour certains organes cibles - exposition unique**  
Peut irriter les voies respiratoires.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

### RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Effets écotoxiques:**
- **Remarque:** Toxique chez les poissons.
- **Autres indications écologiques:**
- **Indications générales:**  
Catégorie de pollution des eaux 2 (D) (Classification propre): polluant  
Ne pas laisser pénétrer dans la nappe phréatique, les eaux ou les canalisations.  
Ne doit pas pénétrer à l'état non dilué ou non neutralisé dans les eaux usées ou le collecteur.  
Danger pour l'eau potable dès fuite d'une petite quantité dans le sous-sol.  
Dans les eaux, également toxique pour les poissons et le plancton.  
Toxique pour les organismes aquatiques.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

### RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.
- **Produit de nettoyage recommandé:** Eau, éventuellement avec des produits de nettoyage

### RUBRIQUE 14: Informations relatives au transport

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>14.1 Numéro ONU</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>   | <p style="margin: 0;">UN1760</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.2 Désignation officielle de transport de l'ONU</b></li> <li>· <b>ADR</b></li> <li style="padding-top: 10px;">· <b>IMDG</b></li> <li style="padding-top: 10px;">· <b>IATA</b></li> </ul> | <p style="margin: 0;">1760 LIQUIDE CORROSIF, N.S.A. (ACIDE ACÉTIQUE GLACIAL, FORMALDÉHYDE EN SOLUTION), DANGEREUX POUR L'ENVIRONNEMENT</p> <p style="margin: 0;">CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT</p> <p style="margin: 0;">CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)</p> |

(suite page 8)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

Nom du produit: **HOLLANDE'S FIXATIVE**

(suite de la page 7)

· **14.3 Classe(s) de danger pour le transport**

· **ADR, IMDG**



· **Classe** 8 Matières corrosives.  
 · **Étiquette** 8

· **IATA**



· **Class** 8 Matières corrosives.  
 · **Label** 8

· **14.4 Groupe d'emballage**

· **ADR, IMDG, IATA** III

· **14.5 Dangers pour l'environnement:**

· **Marine Pollutant:** Le produit contient matières dangereuses pour l'environnement : cupric acetate  
 · **Marquage spécial (ADR):** Signe conventionnel (poisson et arbre)  
 Signe conventionnel (poisson et arbre)

· **14.6 Précautions particulières à prendre par l'utilisateur**

· **Indice Kemler:** Attention: Matières corrosives.  
 80  
 · **No EMS:** F-A,S-B  
 · **Segregation groups** Acids  
 · **Stowage Category** A  
 · **Stowage Code** SW2 Clear of living quarters.

· **14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC**

Non applicable.

· **Indications complémentaires de transport:**

· **ADR**  
 · **Quantités limitées (LQ)** 5L  
 · **Quantités exceptées (EQ)** Code: E1  
 Quantité maximale nette par emballage intérieur: 30 ml  
 Quantité maximale nette par emballage extérieur: 1000 ml  
 · **Catégorie de transport** 3  
 · **Code de restriction en tunnels** E

· **IMDG**

· **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

(suite page 9)

# Fiche de données de sécurité

## selon 1907/2006/CE, Article 31

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

(suite de la page 8)

<p>· <b>"Règlement type" de l'ONU:</b></p>	<p>UN 1760 LIQUIDE CORROSIF, N.S.A. (ACIDE ACÉTIQUE GLACIAL, FORMALDÉHYDE EN SOLUTION), 8, III, DANGEREUX POUR L'ENVIRONNEMENT</p>
--	--

### RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- Directive 2012/18/UE
- Substances dangereuses désignées - ANNEXE I Formaldéhyde
- Catégorie SEVESO E2 Danger pour l'environnement aquatique
- Quantité seuil (tonnes) pour l'application des exigences relatives au seuil bas 200 t
- Quantité seuil (tonnes) pour l'application des exigences relatives au seuil haut 500 t
- RÈGLEMENT (CE) N° 1907/2006 ANNEXE XVII Conditions de limitation: 3
- Prescriptions nationales:
- Indications sur les restrictions de travail:  
Le personnel ne doit pas être exposé aux substances dangereuses cancérigènes contenues dans cette préparation.  
Les autorités peuvent autoriser des exceptions dans des cas particuliers.
- **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

### RUBRIQUE 16: Autres informations

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

- **Phrases importantes**
- H201 Explosif; danger d'explosion en masse.
- H226 Liquide et vapeurs inflammables.
- H301 Toxique en cas d'ingestion.
- H302 Nocif en cas d'ingestion.
- H311 Toxique par contact cutané.
- H312 Nocif par contact cutané.
- H314 Provoque des brûlures de la peau et des lésions oculaires graves.
- H315 Provoque une irritation cutanée.
- H317 Peut provoquer une allergie cutanée.
- H319 Provoque une sévère irritation des yeux.
- H331 Toxique par inhalation.
- H335 Peut irriter les voies respiratoires.
- H341 Susceptible d'induire des anomalies génétiques.
- H350 Peut provoquer le cancer.
- H400 Très toxique pour les organismes aquatiques.
- H410 Très toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme.
- **Acronymes et abréviations:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)

(suite page 10)

**Fiche de données de sécurité**  
**selon 1907/2006/CE, Article 31**

Date d'impression : 22.06.2017

Révision: 22.06.2017

**Nom du produit: HOLLANDE'S FIXATIVE**

(suite de la page 9)

*LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Expl. 1.1: Explosibles – Division 1.1**Flam. Liq. 3: Liquides inflammables – Catégorie 3**Acute Tox. 3: Toxicité aiguë – Catégorie 3**Acute Tox. 4: Toxicité aiguë – Catégorie 4**Skin Corr. 1A: Corrosion cutanée/irritation cutanée – Catégorie 1A**Skin Corr. 1B: Corrosion cutanée/irritation cutanée – Catégorie 1B**Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2**Eye Dam. 1: Lésions oculaires graves/irritation oculaire – Catégorie 1**Eye Irrit. 2: Lésions oculaires graves/irritation oculaire – Catégorie 2**Skin Sens. 1: Sensibilisation cutanée – Catégorie 1**Muta. 2: Mutagénicité sur les cellules germinales – Catégorie 2**Carc. 1B: Cancérogénicité – Catégorie 1B**STOT SE 3: Toxicité spécifique pour certains organes cibles (exposition unique) – Catégorie 3**Aquatic Acute 1: Dangers pour le milieu aquatique- toxicité aiguë pour le milieu aquatique – Catégorie 1**Aquatic Chronic 1: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 1**Aquatic Chronic 2: Dangers pour le milieu aquatique- toxicité à long terme pour le milieu aquatique – Catégorie 2*

FR

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

### ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname:** HOLLANDE'S FIXATIVE
- **Artikelnummer:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffs / des Gemisches** Laborchemikalien
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
  
Tel: +49(0)89 18 93 668-0  
safety@scienceservices.de  
  
Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, www.toxinfo.org  
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich:** Product safety department
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS08 Gesundheitsgefahr

Muta. 2

H341 Kann vermutlich genetische Defekte verursachen.

Carc. 1B

H350 Kann Krebs erzeugen.



GHS05 Ätzwirkung

Skin Corr. 1B

H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.

Eye Dam. 1

H318 Verursacht schwere Augenschäden.



GHS09 Umwelt

Aquatic Chronic 2 H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.



GHS07

Acute Tox. 4

H302 Gesundheitsschädlich bei Verschlucken.

(Fortsetzung auf Seite 2)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 1)

Acute Tox. 4	H312	Gesundheitsschädlich bei Hautkontakt.
Acute Tox. 4	H332	Gesundheitsschädlich bei Einatmen.
Skin Sens. 1	H317	Kann allergische Hautreaktionen verursachen.
STOT SE 3	H335	Kann die Atemwege reizen.

### · 2.2 Kennzeichnungselemente

#### · Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008

Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.

#### · Gefahrenpiktogramme



GHS05   GHS07   GHS08   GHS09

#### · Signalwort Gefahr

#### · Gefahrbestimmende Komponenten zur Etikettierung:

Formaldehyd  
Essigsäure  
cupric acetate  
2,4,6-Trinitrophenol

#### · Gefahrenhinweise

H302+H312+H332 Gesundheitsschädlich bei Verschlucken, Hautkontakt oder Einatmen.  
H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.  
H317 Kann allergische Hautreaktionen verursachen.  
H341 Kann vermutlich genetische Defekte verursachen.  
H350 Kann Krebs erzeugen.  
H335 Kann die Atemwege reizen.  
H411 Giftig für Wasserorganismen, mit langfristiger Wirkung.

#### · Sicherheitshinweise

P303+P361+P353 BEI BERÜHRUNG MIT DER HAUT (oder dem Haar): Alle kontaminierten Kleidungsstücke sofort ausziehen. Haut mit Wasser abwaschen/duschen.  
P305+P351+P338 BEI KONTAKT MIT DEN AUGEN: Einige Minuten lang behutsam mit Wasser spülen. Eventuell vorhandene Kontaktlinsen nach Möglichkeit entfernen. Weiter spülen.  
P310 Sofort GIFTINFORMATIONSZENTRUM/Arzt anrufen.  
P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).  
P405 Unter Verschluss aufbewahren.  
P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.

#### · Zusätzliche Angaben:

Nur für gewerbliche Anwender.

#### · 2.3 Sonstige Gefahren

#### · Ergebnisse der PBT- und vPvB-Beurteilung

- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

## ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

### · 3.2 Chemische Charakterisierung: Gemische

· **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.

(Fortsetzung auf Seite 3)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 2)

· <b>Gefährliche Inhaltsstoffe:</b>		
CAS: 50-00-0 EINECS: 200-001-8	Formaldehyd ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1, H317	10-25%
CAS: 64-19-7 EINECS: 200-580-7	Essigsäure ☠ Flam. Liq. 3, H226; ☠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	2,5-10%
CAS: 6046-93-1 EINECS: 205-553-3	cupric acetate ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2,5%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-Trinitrophenol ☠ Expl. 1.1, H201; ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤ 2,5%

· **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

#### · 4.1 Beschreibung der Erste-Hilfe-Maßnahmen

##### · **Allgemeine Hinweise:**

Mit Produkt verunreinigte Kleidungsstücke unverzüglich entfernen.

Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.

##### · **Nach Einatmen:**

Reichlich Frischluftzufuhr und sicherheitshalber Arzt aufsuchen.

Bei Bewußtlosigkeit Lagerung und Transport in stabiler Seitenlage.

##### · **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.

##### · **Nach Augenkontakt:**

Augen bei geöffnetem Lidspalt mehrere Minuten unter fließendem Wasser abspülen und Arzt konsultieren.

##### · **Nach Verschlucken:**

Sofort Arzt aufsuchen.

Reichlich Wasser nachtrinken und Frischluftzufuhr. Unverzüglich Arzt hinzuziehen.

#### · 4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen

Keine weiteren relevanten Informationen verfügbar.

#### · 4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung

Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

#### · 5.1 Löschmittel

· **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.

#### · 5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren

Keine weiteren relevanten Informationen verfügbar.

#### · 5.3 Hinweise für die Brandbekämpfung

· **Besondere Schutzausrüstung:** Atemschutzgerät anlegen.

### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

· **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Schutzausrüstung tragen. Ungeschützte Personen fernhalten.

#### · 6.2 Umweltschutzmaßnahmen:

Bei Eindringen in Gewässer oder Kanalisation zuständige Behörden benachrichtigen.

(Fortsetzung auf Seite 4)



# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 3)

*Mit viel Wasser verdünnen.**Nicht in die Kanalisation/Oberflächenwasser/Grundwasser gelangen lassen.***· 6.3 Methoden und Material für Rückhaltung und Reinigung:***Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.**Neutralisationsmittel anwenden.**Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.**Für ausreichende Lüftung sorgen.***· 6.4 Verweis auf andere Abschnitte***Informationen zur sicheren Handhabung siehe Abschnitt 7.**Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.**Informationen zur Entsorgung siehe Abschnitt 13.*

### ABSCHNITT 7: Handhabung und Lagerung

**· 7.1 Schutzmaßnahmen zur sicheren Handhabung***Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.**Behälter mit Vorsicht öffnen und handhaben.**Aerosolbildung vermeiden.***· Hinweise zum Brand- und Explosionsschutz:** *Atemschutzgeräte bereithalten.***· 7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten****· Lagerung:****· Anforderung an Lagerräume und Behälter:** *Keine besonderen Anforderungen.***· Zusammenlagerungshinweise:** *Nicht erforderlich.***· Weitere Angaben zu den Lagerbedingungen:** *Behälter dicht geschlossen halten.***· Lagerklasse:****· Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** *-***· 7.3 Spezifische Endanwendungen** *Keine weiteren relevanten Informationen verfügbar.*

### ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

**· Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** *Keine weiteren Angaben, siehe Abschnitt 7.***· 8.1 Zu überwachende Parameter****· Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:****50-00-0 Formaldehyd**AGW Langzeitwert: 0,37 mg/m<sup>3</sup>, 0,3 ml/m<sup>3</sup>  
2(I);AGS, Sh, Y, X**64-19-7 Essigsäure**AGW Langzeitwert: 25 mg/m<sup>3</sup>, 10 ml/m<sup>3</sup>  
2(I);DFG, EU, Y**88-89-1 2,4,6-Trinitrophenol**AGW Langzeitwert: 0,1 E mg/m<sup>3</sup>  
1(I);H, EU, 13**· Zusätzliche Hinweise:** *Als Grundlage dienen die bei der Erstellung gültigen Listen.***· 8.2 Begrenzung und Überwachung der Exposition****· Persönliche Schutzausrüstung:****· Allgemeine Schutz- und Hygienemaßnahmen:***Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.**Beschmutzte, getränkte Kleidung sofort ausziehen.*

(Fortsetzung auf Seite 5)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 4)

Vor den Pausen und bei Arbeitsende Hände waschen.  
 Getrennte Aufbewahrung der Schutzkleidung.  
 Berührung mit den Augen vermeiden.  
 Berührung mit den Augen und der Haut vermeiden.

· **Atemschutz:**

Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition unluftunabhängiges Atemschutzgerät verwenden.

· **Handschutz:**



Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

· **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialien nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:**

Schutzbrille



Dichtschließende Schutzbrille

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

· **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**

· **Allgemeine Angaben**

· **Aussehen:**

Form: Flüssigkeit

Farbe: Grün

· Geruch: Wahrnehmbar

· Geruchsschwelle: Nicht bestimmt.

· pH-Wert: Nicht bestimmt.

· **Zustandsänderung**

Schmelzpunkt/Gefrierpunkt: Nicht bestimmt.

Siedebeginn und Siedebereich: -21 °C

· Flammpunkt: Nicht anwendbar.

· Entzündbarkeit (fest, gasförmig): Nicht anwendbar.

· Zündtemperatur: ~300 °C

· Zersetzungstemperatur: Nicht bestimmt.

(Fortsetzung auf Seite 6)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 5)

· <b>Selbstentzündungstemperatur:</b>	Das Produkt ist nicht selbstentzündlich.
· <b>Explosive Eigenschaften:</b>	Das Produkt ist nicht explosionsgefährlich.
· <b>Explosionsgrenzen:</b>	
<b>Untere:</b>	7,0 Vol %
<b>Obere:</b>	73,0 Vol %
· <b>Dampfdruck bei 20 °C:</b>	1,7 hPa
· <b>Dichte:</b>	Nicht bestimmt.
· <b>Relative Dichte</b>	Nicht bestimmt.
· <b>Dampfdichte</b>	Nicht bestimmt.
· <b>Verdampfungsgeschwindigkeit</b>	Nicht bestimmt.
· <b>Löslichkeit in / Mischbarkeit mit Wasser:</b>	Vollständig mischbar.
· <b>Verteilungskoeffizient: n-Octanol/Wasser:</b>	Nicht bestimmt.
· <b>Viskosität:</b>	
<b>Dynamisch:</b>	Nicht bestimmt.
<b>Kinematisch:</b>	Nicht bestimmt.
· <b>Lösemittelgehalt:</b>	
<b>Organische Lösemittel:</b>	29,0 %
<b>VOC (EU)</b>	29,00 %
· <b>9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**  
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**  
Gesundheitsschädlich bei Verschlucken, Hautkontakt oder Einatmen.

#### · Einstufungsrelevante LD/LC50-Werte:

##### 50-00-0 Formaldehyd

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**  
Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- **Schwere Augenschädigung/-reizung**  
Verursacht schwere Augenschäden.

(Fortsetzung auf Seite 7)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 6)

- **Sensibilisierung der Atemwege/Haut**  
Kann allergische Hautreaktionen verursachen.
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität**  
Kann vermutlich genetische Defekte verursachen.
- **Karzinogenität**  
Kann Krebs erzeugen.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Kann die Atemwege reizen.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.
- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Ökotoxische Wirkungen:**
- **Bemerkung:** Giftig für Fische.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:**  
Wassergefährdungsklasse 2 (Selbsteinstufung): wassergefährdend  
Nicht in das Grundwasser, in Gewässer oder in die Kanalisation gelangen lassen.  
Darf nicht unverdünnt bzw. unneutralisiert ins Abwasser bzw. in den Vorfluter gelangen.  
Trinkwassergefährdung bereits beim Auslaufen geringer Mengen in den Untergrund.  
In Gewässern auch giftig für Fische und Plankton.  
giftig für Wasserorganismen
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.
- **Empfohlenes Reinigungsmittel:** Wasser, gegebenenfalls mit Zusatz von Reinigungsmitteln.

### ABSCHNITT 14: Angaben zum Transport

- **14.1 UN-Nummer**
- **ADR, IMDG, IATA** UN1760

(Fortsetzung auf Seite 8)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 7)

· **14.2 Ordnungsgemäße UN-Versandbezeichnung**  
 · **ADR** 1760 ÄTZENDER FLÜSSIGER STOFF, N.A.G. (EISESSIG, FORMALDEHYDLÖSUNG), UMWELTGEFÄHRDEND  
 · **IMDG** CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT  
 · **IATA** CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)

· **14.3 Transportgefahrenklassen**· **ADR, IMDG**

· **Klasse** 8 Ätzende Stoffe  
 · **Gefahrzettel** 8

· **IATA**

· **Class** 8 Ätzende Stoffe  
 · **Label** 8

· **14.4 Verpackungsgruppe**· **ADR, IMDG, IATA** III· **14.5 Umweltgefahren:**

Das Produkt enthält umweltgefährdende Stoffe: cupric acetate

· **Marine pollutant:** Symbol (Fisch und Baum)· **Besondere Kennzeichnung (ADR):** Symbol (Fisch und Baum)· **14.6 Besondere Vorsichtsmaßnahmen für den**· **Verwender** Achtung: Ätzende Stoffe· **Kemler-Zahl:** 80· **EMS-Nummer:** F-A,S-B· **Segregation groups** Acids· **Stowage Category** A· **Stowage Code** SW2 Clear of living quarters.· **14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code** Nicht anwendbar.· **Transport/weitere Angaben:**· **ADR**· **Begrenzte Menge (LQ)** 5L· **Freigestellte Mengen (EQ)** Code: E1

Höchste Nettomenge je Innenverpackung: 30 ml

Höchste Nettomenge je Außenverpackung: 1000 ml

· **Beförderungskategorie** 3· **Tunnelbeschränkungscode** E

(Fortsetzung auf Seite 9)

# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 8)

· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1760 ÄTZENDER FLÜSSIGER STOFF, N.A.G. (EISESSIG, FORMALDEHYDLÖSUNG), 8, III, UMWELTGEFÄHRDEND

### ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I Formaldehyd**
- **Seveso-Kategorie E2 Gewässergefährdend**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der unteren Klasse 200 t**
- **Mengenschwelle (in Tonnen) für die Anwendung in Betrieben der oberen Klasse 500 t**
- **VERORDNUNG (EG) Nr. 1907/2006 ANHANG XVII Beschränkungsbedingungen: 3**
- **Nationale Vorschriften:**
- **Hinweise zur Beschäftigungsbeschränkung:**  
Arbeitnehmer dürfen den in dieser Zubereitung enthaltenen krebserzeugenden Gefahrstoffen nicht ausgesetzt sein. Im Einzelfall kann die Behörde Ausnahmen zulassen.
- **Technische Anleitung Luft:**

Klasse	Anteil in %
I	25,0
II	5,0
- **Wassergefährdungsklasse: WGK 2 (Selbsteinstufung): wassergefährdend.**
- **Sonstige Vorschriften, Beschränkungen und Verbotsverordnungen**  
Das Produkt unterliegt der Anlage 2 der Chemikalienverbotsverordnung (ChemVerbotsV) - Anforderungen in Bezug auf die Abgabe
- **15.2 Stoffsicherheitsbeurteilung: Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.**

### ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

- **Relevante Sätze**
- H201 Explosiv, Gefahr der Massenexplosion.
- H226 Flüssigkeit und Dampf entzündbar.
- H301 Giftig bei Verschlucken.
- H302 Gesundheitsschädlich bei Verschlucken.
- H311 Giftig bei Hautkontakt.
- H312 Gesundheitsschädlich bei Hautkontakt.
- H314 Verursacht schwere Verätzungen der Haut und schwere Augenschäden.
- H315 Verursacht Hautreizungen.
- H317 Kann allergische Hautreaktionen verursachen.

(Fortsetzung auf Seite 10)

**Sicherheitsdatenblatt**  
gemäß 1907/2006/EG, Artikel 31

Druckdatum: 22.06.2017

überarbeitet am: 22.06.2017

**Handelsname: HOLLANDE'S FIXATIVE**

(Fortsetzung von Seite 9)

H319 Verursacht schwere Augenreizung.  
 H331 Giftig bei Einatmen.  
 H335 Kann die Atemwege reizen.  
 H341 Kann vermutlich genetische Defekte verursachen.  
 H350 Kann Krebs erzeugen.  
 H400 Sehr giftig für Wasserorganismen.  
 H410 Sehr giftig für Wasserorganismen mit langfristiger Wirkung.

**Abkürzungen und Akronyme:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Expl. 1.1: Explosive Stoffe/Gemische und Erzeugnisse mit Explosivstoff – Unterklasse 1.1  
 Flam. Liq. 3: Entzündbare Flüssigkeiten – Kategorie 3  
 Acute Tox. 3: Akute Toxizität – Kategorie 3  
 Acute Tox. 4: Akute Toxizität – Kategorie 4  
 Skin Corr. 1A: Hautreizende/-ätzende Wirkung – Kategorie 1A  
 Skin Corr. 1B: Hautreizende/-ätzende Wirkung – Kategorie 1B  
 Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2  
 Eye Dam. 1: Schwere Augenschädigung/Augenreizung – Kategorie 1  
 Eye Irrit. 2: Schwere Augenschädigung/Augenreizung – Kategorie 2  
 Skin Sens. 1: Sensibilisierung der Haut – Kategorie 1  
 Muta. 2: Keimzellmutagenität – Kategorie 2  
 Carc. 1B: Karzinogenität – Kategorie 1B  
 STOT SE 3: Spezifische Zielorgan-Toxizität (einmalige Exposition) – Kategorie 3  
 Aquatic Acute 1: Gewässergefährdend - akut gewässergefährdend – Kategorie 1  
 Aquatic Chronic 1: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 1  
 Aquatic Chronic 2: Gewässergefährdend - langfristig gewässergefährdend – Kategorie 2

DE

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

### SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

· **1.1 Identificatore del prodotto**

· **Denominazione commerciale:** HOLLANDE'S FIXATIVE

· **Articolo numero:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP

· **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**

Non sono disponibili altre informazioni.

· **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio

· **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**

· **Produttore/fornitore:**

Societa Italiana Chimici

Via Rio Nell Ellba 140

00138 Rome, Italy

Tel: 39 06 8800211

Fax: 39 30 06 8815313

Web: www.sichim.com

· **Informazioni fornite da:** Product safety department

· **1.4 Numero telefonico di emergenza:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

· **2.1 Classificazione della sostanza o della miscela**

· **Classificazione secondo il regolamento (CE) n. 1272/2008**



GHS08 pericolo per la salute

Muta. 2

H341 Sospettato di provocare alterazioni genetiche.

Carc. 1B

H350 Può provocare il cancro.



GHS05 corrosione

Skin Corr. 1B

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

Eye Dam. 1

H318 Provoca gravi lesioni oculari.



GHS09 ambiente

Aquatic Chronic 2 H411 Tossico per gli organismi acquatici con effetti di lunga durata.



GHS07

Acute Tox. 4

H302 Nocivo se ingerito.

Acute Tox. 4

H312 Nocivo per contatto con la pelle.

Acute Tox. 4

H332 Nocivo se inalato.

Skin Sens. 1

H317 Può provocare una reazione allergica cutanea.

STOT SE 3

H335 Può irritare le vie respiratorie.

(continua a pagina 2)



**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

Denominazione commerciale: **HOLLANDE'S FIXATIVE**

(Segue da pagina 1)

· **2.2 Elementi dell'etichetta**· **Etichettatura secondo il regolamento (CE) n. 1272/2008**

Il prodotto è classificato ed etichettato conformemente al regolamento CLP.

· **Pittogrammi di pericolo**

GHS05   GHS07   GHS08   GHS09

· **Avvertenza Pericolo**· **Componenti pericolosi che ne determinano l'etichettatura:**

formaldeide

acido acetico

cupric acetate

2,4,6-trinitrofenolo

· **Indicazioni di pericolo**

H302+H312+H332 Nocivo se ingerito, a contatto con la pelle o se inalato.

H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.

H317 Può provocare una reazione allergica cutanea.

H341 Sospettato di provocare alterazioni genetiche.

H350 Può provocare il cancro.

H335 Può irritare le vie respiratorie.

H411 Tossico per gli organismi acquatici con effetti di lunga durata.

· **Consigli di prudenza**

P303+P361+P353 IN CASO DI CONTATTO CON LA PELLE (o con i capelli): togliere immediatamente tutti gli indumenti contaminati. Sciacquare la pelle/fare una doccia.

P305+P351+P338 IN CASO DI CONTATTO CON GLI OCCHI: sciacquare accuratamente per parecchi minuti. Togliere le eventuali lenti a contatto se è agevole farlo. Continuare a sciacquare.

P310 Contattare immediatamente un CENTRO ANTIVELENI/un medico.

P321 Trattamento specifico (vedere su questa etichetta).

P405 Conservare sotto chiave.

P501 Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.

· **2.3 Altri pericoli**· **Risultati della valutazione PBT e vPvB**· **PBT:** Non applicabile.· **vPvB:** Non applicabile.

### SEZIONE 3: Composizione/informazioni sugli ingredienti

· **3.2 Caratteristiche chimiche: Miscela**· **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.· **Sostanze pericolose:**

CAS: 50-00-0 EINECS: 200-001-8	formaldeide ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ⚠ Muta. 2, H341; Carc. 1B, H350; ⚠ Skin Corr. 1B, H314; ⚠ Skin Sens. 1, H317	10-25%
CAS: 64-19-7 EINECS: 200-580-7	acido acetico ⚠ Flam. Liq. 3, H226; ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	2,5-10%

(continua a pagina 3)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 2)

CAS: 6046-93-1 EINECS: 205-553-3	cupric acetate Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	≤ 2,5%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrofenolo Expl. 1.1, H201; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	≤ 2,5%

· **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

#### SEZIONE 4: Misure di primo soccorso

· **4.1 Descrizione delle misure di primo soccorso**

· **Indicazioni generali:**

Allontanare immediatamente gli abiti contaminati dal prodotto.

I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.

· **Inalazione:**

Portare il soggetto in zona molto ben areata e per sicurezza consultare un medico.

Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.

· **Contatto con la pelle:** Lavare immediatamente con acqua e sapone sciacquando accuratamente.

· **Contatto con gli occhi:**

Lavare con acqua corrente per diversi minuti tenendo le palpebre ben aperte e consultare il medico.

· **Ingestione:**

Chiamare subito il medico.

Bere abbondante acqua e sostare in zona ben areata. Richiedere immediatamente l'intervento del medico.

· **4.2 Principali sintomi ed effetti, sia acuti che ritardati** Non sono disponibili altre informazioni.

· **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**

Non sono disponibili altre informazioni.

#### SEZIONE 5: Misure antincendio

· **5.1 Mezzi di estinzione**

· **Mezzi di estinzione idonei:** Adottare provvedimenti antiincendio nei dintorni della zona colpita.

· **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** Non sono disponibili altre informazioni.

· **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**

· **Mezzi protettivi specifici:** Indossare il respiratore.

#### SEZIONE 6: Misure in caso di rilascio accidentale

· **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza**

Indossare equipaggiamento protettivo. Allontanare le persone non equipaggiate.

· **6.2 Precauzioni ambientali:**

In caso di infiltrazione nei corpi d'acqua o nelle fognature avvertire le autorità competenti.

Diluire abbondantemente con acqua.

Impedire infiltrazioni nella fognatura/nelle acque superficiali/nelle acque freatiche.

· **6.3 Metodi e materiali per il contenimento e per la bonifica:**

Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).

Utilizzare mezzi di neutralizzazione.

Smaltimento del materiale contaminato conformemente al punto 13.

Provvedere ad una sufficiente areazione.

· **6.4 Riferimento ad altre sezioni**

Per informazioni relative ad una manipolazione sicura, vedere capitolo 7.

(continua a pagina 4)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 3)

Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.  
Per informazioni relative allo smaltimento vedere Capitolo 13.

### SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**  
Accurata ventilazione/aspirazione nei luoghi di lavoro.  
Aprire e manipolare i recipienti con cautela.  
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Tener pronto il respiratore.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Mantenere i recipienti ermeticamente chiusi.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

### SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.

#### · 8.1 Parametri di controllo

- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**

#### 50-00-0 formaldeide

TWA	Limite Ceiling: 0,37 mg/m <sup>3</sup> , 0,3 ppm sen, A2
-----	---

#### 64-19-7 acido acetico

TWA	Valore a breve termine: 37 mg/m <sup>3</sup> , 15 ppm Valore a lungo termine: 25 mg/m <sup>3</sup> , 10 ppm
-----	--

#### 88-89-1 2,4,6-trinitrofenolo

TWA	Valore a lungo termine: 0,1 mg/m <sup>3</sup>
-----	---

- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.

#### · 8.2 Controlli dell'esposizione

##### · Mezzi protettivi individuali:

##### · Norme generali protettive e di igiene del lavoro:

- Tenere lontano da cibo, bevande e foraggi.
- Togliere immediatamente gli abiti contaminati.
- Lavarsi le mani prima dell'intervallo o a lavoro terminato.
- Custodire separatamente l'equipaggiamento protettivo.
- Evitare il contatto con gli occhi.
- Evitare il contatto con gli occhi e la pelle.

##### · Maschera protettiva:

Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.

##### · Guanti protettivi:



Guanti protettivi

(continua a pagina 5)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 4)

*Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.*

*A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.*

*Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.*

· **Materiale dei guanti**

*La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego*

· **Tempo di permeazione del materiale dei guanti**

*Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.*

· **Occhiali protettivi:**

Occhiali protettivi



Occhiali protettivi a tenuta

### SEZIONE 9: Proprietà fisiche e chimiche

· **9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali**

· **Indicazioni generali**

· **Aspetto:**

**Forma:** Liquido

**Colore:** Verde

· **Odore:** Percettibile

· **Soglia olfattiva:** Non definito.

· **valori di pH:** Non definito.

· **Cambiamento di stato**

**Punto di fusione/punto di congelamento:** Non definito.

**Punto di ebollizione iniziale e intervallo di ebollizione:** -21 °C

· **Punto di infiammabilità:** Non applicabile.

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di accensione:** ~300 °C

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **Proprietà esplosive:** Prodotto non esplosivo.

· **Limiti di infiammabilità:**

**Inferiore:** 7,0 Vol %

**Superiore:** 73,0 Vol %

· **Tensione di vapore a 20 °C:** 1,7 hPa

· **Densità:** Non definito.

· **Densità relativa:** Non definito.

· **Densità di vapore:** Non definito.

· **Velocità di evaporazione:** Non definito.

(continua a pagina 6)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 5)

- |  |  |
|--|--|
| · <b>Solubilità in/Miscibilità con acqua:</b>            | Completamente miscibile.                 |
| · <b>Coefficiente di ripartizione: n-ottanolo/acqua:</b> | Non definito.                            |
| · <b>Viscosità:</b>                                      |  |
| <b>Dinamica:</b>   | Non definito.                            |
| <b>Cinematica:</b>                                       | Non definito.                            |
| · <b>Tenore del solvente:</b>                            |  |
| <b>Solventi organici:</b>                                | 29,0 %                                   |
| <b>VOC (CE)</b>  | 29,00 %                                  |
| · <b>9.2 Altre informazioni</b>                          | Non sono disponibili altre informazioni. |

### SEZIONE 10: Stabilità e reattività

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

### SEZIONE 11: Informazioni tossicologiche

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta**  
Nocivo se ingerito, a contatto con la pelle o se inalato.

- **Valori LD/LC50 rilevanti per la classificazione:**

50-00-0 formaldeide

Orale	LD50	>200 mg/kg (rat)
-------	------	------------------

- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca gravi ustioni cutanee e gravi lesioni oculari.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Provoca gravi lesioni oculari.
- **Sensibilizzazione respiratoria o cutanea**  
Può provocare una reazione allergica cutanea.
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**  
Sospettato di provocare alterazioni genetiche.
- **Cancerogenicità**  
Può provocare il cancro.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
Può irritare le vie respiratorie.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

(continua a pagina 7)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 6)

· **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

### SEZIONE 12: Informazioni ecologiche

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Effetti tossici per l'ambiente:**
- **Osservazioni:** Tossico per i pesci.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:**  
Pericolosità per le acque classe 2 (D) (Autoclassificazione): pericoloso  
Non immettere nelle acque freatiche, nei corsi d'acqua o nelle fognature.  
Non immettere il prodotto non diluito o non neutralizzato nelle acque di scarico e nei canali di raccolta.  
Pericolo per le acque potabili anche in caso di perdite nel sottosuolo di piccole quantità di prodotto.  
Tossico per pesci e plancton.  
tossico per gli organismi acquatici
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

### SEZIONE 13: Considerazioni sullo smaltimento

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.
- **Detergente consigliato:** Acqua eventualmente con l'aggiunta di detersivi.

### SEZIONE 14: Informazioni sul trasporto

- |   |  |
|---|--|
| · <b>14.1 Numero ONU</b>                  |  |
| · <b>ADR, IMDG, IATA</b>                  | UN1760   |
| · <b>14.2 Nome di spedizione dell'ONU</b> |  |
| · <b>ADR</b>                              | 1760 LIQUIDO CORROSIVO, N.A.S. (ACIDO ACETICO GLACIALE, FORMALDEIDE IN SOLUZIONE), PERICOLOSO PER L'AMBIENTE |
| · <b>IMDG</b>                             | CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT                     |
| · <b>IATA</b>                             | CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)                                       |

(continua a pagina 8)

**Scheda di dati di sicurezza**  
**ai sensi del regolamento 1907/2006/CE, Articolo 31**

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 7)

**· 14.3 Classi di pericolo connesso al trasporto**

**· ADR, IMDG**



· **Classe** 8 Materie corrosive  
 · **Etichetta** 8

**· IATA**



· **Class** 8 Materie corrosive  
 · **Label** 8

**· 14.4 Gruppo di imballaggio**

· **ADR, IMDG, IATA** III

**· 14.5 Pericoli per l'ambiente:**

*Il prodotto contiene materie pericolose per l'ambiente: cupric acetate*  
 · **Marine pollutant:** Simbolo (pesce e albero)  
 · **Marcatura speciali (ADR):** Simbolo (pesce e albero)

**· 14.6 Precauzioni speciali per gli utilizzatori**

· **Numero Kemler:** 80  
 · **Numero EMS:** F-A,S-B  
 · **Segregation groups** Acids  
 · **Stowage Category** A  
 · **Stowage Code** SW2 Clear of living quarters.

**· 14.7 Trasporto di rifiuti secondo l'allegato II di MARPOL ed il codice IBC**

Non applicabile.

**· Trasporto/ulteriori indicazioni:**

**· ADR**

· **Quantità limitate (LQ)** 5L  
 · **Quantità esenti (EQ)** Codice: E1  
*Quantità massima netta per imballaggio interno: 30 ml*  
*Quantità massima netta per imballaggio esterno: 1000 ml*  
 · **Categoria di trasporto** 3  
 · **Codice di restrizione in galleria** E

**· IMDG**

· **Limited quantities (LQ)** 5L  
 · **Excepted quantities (EQ)** Code: E1  
*Maximum net quantity per inner packaging: 30 ml*  
*Maximum net quantity per outer packaging: 1000 ml*

(continua a pagina 9)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 8)

· **UN "Model Regulation":** UN 1760 LIQUIDO CORROSIVO, N.A.S. (ACIDO ACETICO GLACIALE, FORMALDEIDE IN SOLUZIONE), 8, III, PERICOLOSO PER L'AMBIENTE

### SEZIONE 15: Informazioni sulla regolamentazione

· **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**

- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I formaldeide**
- **Categoria Seveso E2 Pericoloso per l'ambiente acquatico**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia inferiore 200 t**
- **Quantità limite (tonnellate) ai fini dell'applicazione dei requisiti di soglia superiore 500 t**
- **REGOLAMENTO (CE) n. 1907/2006 ALLEGATO XVII Restrizioni: 3**

· **Disposizioni nazionali:**

· **Indicazioni relative alla limitazione delle attività lavorative:**

*Il personale non deve essere esposto alle sostanze cancerogene contenute in questo preparato L'autorità può ammettere nei singoli casi delle eccezioni.*

· **Istruzione tecnica aria:**

Classe	quota in %
NC	29,0

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

### SEZIONE 16: Altre informazioni

*I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.*

· **Frasei rilevanti**

- H201 Esplosivo; pericolo di esplosione di massa.
- H226 Liquido e vapori infiammabili.
- H301 Tossico se ingerito.
- H302 Nocivo se ingerito.
- H311 Tossico per contatto con la pelle.
- H312 Nocivo per contatto con la pelle.
- H314 Provoca gravi ustioni cutanee e gravi lesioni oculari.
- H315 Provoca irritazione cutanea.
- H317 Può provocare una reazione allergica cutanea.
- H319 Provoca grave irritazione oculare.
- H331 Tossico se inalato.
- H335 Può irritare le vie respiratorie.
- H341 Sospettato di provocare alterazioni genetiche.
- H350 Può provocare il cancro.
- H400 Molto tossico per gli organismi acquatici.
- H410 Molto tossico per gli organismi acquatici con effetti di lunga durata.

· **Abbreviazioni e acronimi:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

(continua a pagina 10)



**Scheda di dati di sicurezza**  
**ai sensi del regolamento 1907/2006/CE, Articolo 31**

Stampato il: 22.06.2017

Revisione: 22.06.2017

**Denominazione commerciale: HOLLANDE'S FIXATIVE**

(Segue da pagina 9)

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Expl. 1.1: Esplosivi – Divisione 1.1**Flam. Liq. 3: Liquidi infiammabili – Categoria 3**Acute Tox. 3: Tossicità acuta – Categoria 3**Acute Tox. 4: Tossicità acuta – Categoria 4**Skin Corr. 1A: Corrosione/irritazione della pelle – Categoria 1A**Skin Corr. 1B: Corrosione/irritazione della pelle – Categoria 1B**Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2**Eye Dam. 1: Gravi lesioni oculari/irritazione oculare – Categoria 1**Eye Irrit. 2: Gravi lesioni oculari/irritazione oculare – Categoria 2**Skin Sens. 1: Sensibilizzazione della pelle – Categoria 1**Muta. 2: Mutagenicità sulle cellule germinali – Categoria 2**Carc. 1B: Cancerogenicità – Categoria 1B**STOT SE 3: Tossicità specifica per organi bersaglio (esposizione singola) – Categoria 3**Aquatic Acute 1: Pericoloso per l'ambiente acquatico - pericolo acuto per l'ambiente acquatico – Categoria 1**Aquatic Chronic 1: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 1**Aquatic Chronic 2: Pericoloso per l'ambiente acquatico - pericolo a lungo termine per l'ambiente acquatico – Categoria 2*

IT

# 물질안전보건자료

## GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

### 1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **HOLLANDE'S FIXATIVE**
- 상품번호: 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도 추가적인 정보가 존재하지 않습니다.
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:
 

Samchang Commercial Co., Ltd.  
 Yeo Eui Do  
 PO Box 1110  
 Seoul, Korea  
 Tel: 82 2 703 3040  
 Fax: 82 2 717 3298
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:
 

ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 유해성·위험성

#### · 순물질 또는 혼합물의 분류



건강에 위험

- |                  |                           |
|------------------|---------------------------|
| 생식세포 변이원성 - 구분 2 | H341 유전적인 결함을 일으킬 것으로 의심됨 |
| 발암성 - 구분 1B      | H350 암을 일으킬 수 있음          |



부식

- |                       |                           |
|-----------------------|---------------------------|
| 피부 부식성/피부 자극성 - 구분 1  | H314 피부에 심한 화상과 눈 손상을 일으킴 |
| 심한 눈 손상성/눈 자극성 - 구분 1 | H318 눈에 심한 손상을 일으킴        |



환경

- |                |                             |
|----------------|-----------------------------|
| 수생환경 유해성 - 만성2 | H411 장기적인 영향에 의해 수생생물에게 유독함 |
|----------------|-----------------------------|



- |                   |                            |
|-------------------|----------------------------|
| 급성 독성 - 경구 - 구분 4 | H302 삼키면 유해함               |
| 급성 독성 - 경피 - 구분 4 | H312 피부와 접촉하면 유해함          |
| 급성 독성 - 흡입 - 구분 4 | H332 흡입하면 유해함              |
| 피부 과민성 - 구분 1     | H317 알레르기성 피부 반응을 일으킬 수 있음 |

#### · 라벨표기 요소

#### · GHS 라벨 요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

(2 쪽에 계속)

# 물질안전보건자료 GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(1 쪽부터계속)

**· 그림문자**



**· 신호어 위험**

**· 상표상에명확히위험성이표시된성분:**

- formaldehyde
- Acetic Acid Glacial
- cupric acetate
- 2,4,6-trinitrophenol

**· 유해.위험 문구**

- 삼키거나 피부에 접촉하거나 흡입하면 유해함.
- 피부에 심한 화상과 눈 손상을 일으킴
- 알레르기성 피부 반응을 일으킬 수 있음
- 유전적인 결함을 일으킬 것으로 의심됨
- 암을 일으킬 수 있음
- 장기적인 영향에 의해 수생생물에게 유독함

**· 예방조치 문구**

- 피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으시오. 피부를 물로 씻으시오/샤워하시오.
- 눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.
- 즉시 독성물질센터/병원 연락 필요.
- (라벨 참조) 처치를 하시오.
- 잠금장치가 있는 저장장소에 저장 하시오.
- 현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

**· 기타 유해성**

- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

**· 화학적 특성: 혼합물**

**· 설명:** 무해한 첨가물이 함유된 아래에 열거된 물질로 만들어진 혼합물.

**· 위험요소:**

50-00-0	formaldehyde ⚠ 급성독성 - 경구 - 구분 3, H301; ⚠ 급성독성 - 경피 - 구분 3, H311; ⚠ 급성독성 - 흡입 - 구분 3, H331; ⚠ 생식세포 변이원성 - 구분 2, H341; ⚠ 발암성 - 구분 1B, H350; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 피부 과민성 - 구분 1, H317	10-25%
64-19-7	Acetic Acid Glacial ⚠ 인화성 액체 - 구분 3, H226; ⚠ 피부 부식성/피부 자극성 - 구분 1, H314; ⚠ 급성독성 - 경피 - 구분 4, H312	2.5-10%
6046-93-1	cupric acetate ⚠ 급성독성 - 경구 - 구분 3, H301; ⚠ 수생환경 유해성 - 급성 1, H400; 수생환경 유해성 - 만성1, H410; ⚠ 피부 부식성/피부 자극성 - 구분 2, H315; 심한 눈 손상성/눈 자극성 - 구분 2, H319; 특정표적장기 독성 - 1회 노출 - 구분 3, H335	≤ 2.5%

KR

(3 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(2 쪽부터 계속)

### 4 응급조치 요령

#### · 응급조치요령 내용

##### · 일반적 정보:

이제품에 의해 오염된 의상은 즉시 제거한다.

중독 증상은 몇 시간이 지난 뒤에 발생할 수 있다. 따라서 사고가 발생한 후에 적어도 48 시간동안은 의료진의 관찰을 받아야 한다.

##### · 흡입했을 때:

신선한 공기를 쐬고 나서 반드시 의료진의 도움을 구한다.

환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.

##### · 피부에 접촉했을 때: 즉시 물과 비누로 씻고 잘 행군다.

##### · 눈에 들어갔을 때: 흐르는 물에 눈을 몇 분 동안 씻어내고 나서, 의사와 상담한다

##### · 먹었을 때:

즉시 의사의 도움을 구한다.

물을 충분히 마시고 신선한 공기를 쐬다. 즉시 의사의 도움을 구한다.

##### · 기타 의사의 주의사항:

· 가장 중요한 급·만성 증상 및 영향 추가적인 정보가 존재하지 않습니다.

· 즉각적인 의료처치 및 특별치료가 필요함을 시사하는 징후 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

#### · 소화제

· 적절한 소화제: 주변 환경에 맞는 화재 진화방법을 사용한다.

· 본 화학물질이나 혼합물에서 발생하는 특별 유해성 추가적인 정보가 존재하지 않습니다.

#### · 소방관에 대한 권고사항

· 화재 진압 시 착용할 보호구 및 예방조치: 호흡보호장비 설치.

### 6 누출 사고 시 대처방법

· 개인적 예방조치, 보호장비 및 응급처치 절차 안전장비 착용하고, 무방비의 사람은 격리시킨다.

#### · 환경 관련 예방조치:

하천이나 하수도로 유입되었을 경우 해당관청에 보고한다.

많은 물로 희석시킨다.

하수도망/해수면위의물/지하수로도달하지 않게 한다.

#### · 밀폐 및 정화 방법과 소재:

액체가 혼합된 물질(모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.

중성제를 사용한다.

항목 13에 따라 오염된 물질을 쓰레기로 처분한다.

충분한 환기가 되도록 한다.

#### · 타 섹션 참조

안전 관리에 대한 정보는 제7 장을 참고하십시오.

개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.

쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

### 7 취급 및 저장방법

#### · 취급:

##### · 안전 취급을 위한 예방조치

작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.

조심스럽게 용기를 개봉하거나 취급한다.

연무질이 형성되는 것을 피한다.

(4 쪽에 계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(3 쪽부터계속)

- **화재 및 폭발 사고 예방대책에 관한 정보:** 호흡보호장비를 항상 비치한다.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특 별 한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필 요없음
- **보 관 조 건 에 관 한 추 가 적 인 정 보:** 용기를새지않게밀폐한채보관한다.
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

### 8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이상 의 자료는 없음. 항 목 7 을 참고하시 오.
- **통제 변수**

· **화학물질의 노출기준, 생물학적 노출기준 등:**

**50-00-0 formaldehyde**

TLV (KR)	단기간의값: 1.5 mg/m <sup>3</sup> , 1 ppm 장기간의값: 0.75 mg/m <sup>3</sup> , 0.5 ppm
PEL (US)	단기간의값: 2 ppm 장기간의값: 0.75 ppm see 29 CFR 1910.1048(c)
REL (US)	장기간의값: 0.016 ppm 최고노출기준: 0.1* ppm *15-min; See Pocket Guide App. A
TLV (US)	단기간의값: 0.37 mg/m <sup>3</sup> , 0.3 ppm 장기간의값: 0.12 mg/m <sup>3</sup> , 0.1 ppm DSEN; RSEN

**64-19-7 Acetic Acid Glacial**

TLV (KR)	단기간의값: 37 mg/m <sup>3</sup> , 15 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
IOELV (EU)	단기간의값: 50 mg/m <sup>3</sup> , 20 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
PEL (US)	장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
REL (US)	단기간의값: 37 mg/m <sup>3</sup> , 15 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm
TLV (US)	단기간의값: 37 mg/m <sup>3</sup> , 15 ppm 장기간의값: 25 mg/m <sup>3</sup> , 10 ppm

· **추 가 정 보:** 제 조 할 당 시 에 유 효 한 목 록 을 기 초 로 사 용 했 다.

- **노출 통제**
- **개인 보호구**

· **일반적보호조치및위생조치:**

- 식료품, 음료수와 사료로부터 멀리 떨어져 두어 놓는다.
- 더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.
- 휴식 전 이 나 작업이 끝날때마다 손을 씻는다.
- 방호복은 따로 보관한다.
- 눈과의 접촉 을 피 한 다.
- 눈과 피부와의 접촉 을 피 한 다.

· **호흡기 보호:**

단 시간 또는 경 미 한 오 염 의 경 우 에 는 호 흡 여 과 기 를 사 용 한 다. 심 각 한 또 는 장 기 간 노 출 시 에 는 호 흡 보 호 장 비 를 사 용 한 다.

(5 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(4 쪽부터계속)

**· 손 보호:**



보호용 장갑

장갑재질은제품 / 원료 / 조제를투과시키지않아야하고, 내구성이있어야한다.  
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합 물에 적합한 장갑재질에 대한 추천이 없다.  
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

**· 장갑 의재료**

적합한장갑의선정은재질차이뿐아니라품질기준의차이도고려하여이루어져야하고제조업종에따라서도다르게선정되어야한다. 제품은다양한재료로부터의조제로이루어지는것이기때문에, 장갑재질의안정성은사전에예측되어질수있는것이아니고, 반드시사용전에 (그안전성이) 체크되어야한다.

**· 장갑 재료 의 투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.

**· 눈 보호:**

보호안경



확조이는보안경

### 9 물리화학적 특성

**· 기본 물리 및 화학적 특성에 대한 정보**

**· 일반정보**

**· 외형**

· 물리적 상태:	액체
· 색:	초록
· 냄새:	인지할수있는
· 후각역치	알맞지않다.

· pH: 알맞지않다.

**· 상태변화**

· 녹는점/어는점:	맞지않는
· 초기 끓는점과 끓는점 범위:	-21 °C

· 인화점: 해당사항 없음.

· 인화성(고체, 기체): 해당사항 없음.

· 점화온도: ~300 °C

· 분해 온도: 알맞지않다.

· 자기점화: 이제품은자연발화성이없다.

· 폭발위험: 이제품은폭발위험성이없다

**· 인화 또는 폭발 범위의 상한/하한**

· 아래로:	7.0 Vol %
· 위로:	73.0 Vol %

· 증기압 의경우 20 °C: 1.7 hPa

· 밀도: 맞지않는다.

· 비중: 알맞지않다.

· 증기밀도: 알맞지않다.

(6 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(5 쪽부터계속)

· <b>증발 속도:</b>	알맞지않다.
· <b>용해도:</b>	
· <b>물:</b>	완전히혼합할수있는
· <b>n 옥탄올/물 분배계수:</b>	알맞지않다.
· <b>점도:</b>	
· <b>역학성:</b>	알맞지않다.
· <b>등점성:</b>	알맞지않다.
· <b>용매내용물</b>	
· <b>유기용매:</b>	29.0 %
· <b>VOC (EU)</b>	29.00 %
· <b>기타 정보</b>	추가적인 정보가 존재하지 않습니다.

### 10 안정성 및 반응성

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한 반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

### 11 독성에 관한 정보

- 독성학적 영향에 대한 정보
- 급성 독성:

· <b>LD/LC50-수치에 따른 분류:</b>
50-00-0 formaldehyde
구강의 LD50 >200 mg/kg (rat)

- **일차적 자극 효과:**
- **피부 부식성 또는 자극성:** 피부와점막에강한부식작용.
- **심한 눈 손상 또는 자극성:**  
강한부식작용  
심각한안구상처의위험이있는강한자극
- **감각화:** 피부접촉을통하여감각화가능성이있다.
- **추 가 적 인 독성 에 관 한 정보:**  
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있다.  
건강에해로운  
부식작용의  
자극적인  
삼킬경우식도나위등의내장기관벽에상처를주는위험과 마찬가지로입주변이나구강에강한부식작용을한다  
암을유발하는
- **다음 종류의 잠재적인 효과에 대한 정보**
- **CMR-효과 (암 유발, 돌연변이성 그리고 생식 독성)**  
생식세포 변이원성 - 구분 2, 발암성 - 구분 1B

KR

(7 쪽에계속)

제품명: HOLLANDE'S FIXATIVE

(6 쪽부터계속)

### 12 환경에 미치는 영향

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.
- 생태독성:
- 의견: 어류에독이됨
- 추가적인 생태학 정보:
- 일반 특징:  
수질오염등급 2 (자체등급분류): 수질오염이된 지하수나, 하천으로또는하수도망에도달하지않게한다. 회석시키지않은채또는중화시키지않은채하수도나배수로도달하지않게해야한다. 지하수로경미한양이유입되었을경우엔이미식수오염상태이다 하천에서는역시물고기나플랑크톤게는독성이있다. 물속의유기체에독이되는것
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.
- 기타 부작용 추가적인 정보가 존재하지 않습니다.

### 13 폐기시 주의사항

- 폐기물 처리 방법
- 권고: 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.
- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.
- 추천 세정제: 경우에따라서세제가첨가된물

### 14 운송에 필요한 정보

· 유엔 번호	
· ADR, IMDG, IATA	UN1760
· UN 적정 선적명	
· ADR	1760 CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), ENVIRONMENTALLY HAZARDOUS
· IMDG	CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT
· IATA	CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)

(8 쪽에계속)



# 물질안전보건자료 GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(7 쪽부터계속)

· **교통 위험 클래스**

· **ADR, IMDG**



· **등급** 8 부식작용하는물질  
· **위험물 라벨** 8

· **IATA**



· **Class** 8 부식작용하는물질  
· **Label** 8

· **용기등급**

· **ADR, IMDG, IATA** III

· **환경적 유해물질:** 이물질은환경오염물질을함유하고있다: cupric acetate  
· **해양오염물질:** 심벌 (물고기와 나무)  
· **특수 마킹 (ADR):** 심벌 (물고기와 나무)

· **이용자 특별 예방조치** 경고: 부식작용하는물질  
· **위험 코드:** 80  
· **EMS-번호:** F-A,S-B  
· **Segregation groups** Acids  
· **Stowage Category** A  
· **Stowage Code** SW2 Clear of living quarters.

· **MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송** 해당사항 없음.

· **운 송/추가 정보:**

· **ADR**  
· **한정 수량 (LQ)** 5L  
· **Excepted quantities (EQ)** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml  
· **운송 구분** 3  
· **터널 제한 코드** E

· **IMDG**

· **Limited quantities (LQ)** 5L  
· **Excepted quantities (EQ)** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

(9 쪽에계속)

# 물질안전보건자료 GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(8 쪽부터계속)

· UN "모범 규제":	UN 1760 CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), 8, III, ENVIRONMENTALLY HAZARDOUS
---------------	---

## 15 법적 규제현황

· 산업안전보건법에 의한 규제:

· 제조 등 금지물질:

어떠한내용물도목록화되어있지않다

· 허가대상물질:

어떠한내용물도목록화되어있지않다

· 관리대상유해물질:

50-00-0 formaldehyde

64-19-7 Acetic Acid Glacial

· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률

· Korean Existing Chemical Inventory

50-00-0 formaldehyde

KE-17074

64-19-7 Acetic Acid Glacial

KE-00013

88-89-1 2,4,6-trinitrophenol

KE-34715

· 화학물질관리법

· 사고대비물질

50-00-0 formaldehyde

· 금지물질

어떠한내용물도목록화되어있지않다

· 제한물질

50-00-0 formaldehyde

· 유독물질

50-00-0 formaldehyde

88-89-1 2,4,6-trinitrophenol

· 허가물질

50-00-0 formaldehyde

88-89-1 2,4,6-trinitrophenol

· GHS 라벨 요소

본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.

· 그림문자



GHS05

GHS07

GHS08

GHS09

· 신호어 위험

· 상표상에명확히위험성이표시된성분:

formaldehyde

Acetic Acid Glacial

(10 쪽에계속)

# 물질안전보건자료

## GHS에 따라

기압점: 2017.06.22

개정: 2017.06.22

**제품명: HOLLANDE'S FIXATIVE**

(9 쪽부터계속)

cupric acetate  
2,4,6-trinitrophenol

· **유해.위험 문구**

삼키거나 피부에 접촉하거나 흡입하면 유해함.  
피부에 심한 화상과 눈 손상을 일으킴  
알레르기성 피부 반응을 일으킬 수 있음  
유전적인 결함을 일으킬 것으로 의심됨  
압을 일으킬 수 있음  
장기적인 영향에 의해 수생생물에게 유독함

· **예방조치 문구**

피부(또는 머리카락)에 묻으면 오염된 모든 의복은 벗으시오. 피부를 물로 씻으시오/샤워하시오.  
눈에 묻으면 몇 분간 물로 조심해서 씻으시오. 가능하면콘택트렌즈를 제거하시오. 계속 씻으시오.  
즉시 독성물질센터/병원 연락 필요.  
(라벨 참조) 처치를 하시오.  
잠금장치가 있는 저장장소에 저장하시오.  
현지/지역/국가/국제 규정에 따라서 내용물/용기 노출

· **국내규정:**

· **사용제한에 대한 정보:**

노동자들은이러한예방준비하에압을유발시키는성분을함유한위험물을버리지말아야한다. 개별적인경우에관청은예외를허가할수있다.

· **화학물질 안전성 평가:** 화학물질 안전성 평가가 수행되지 않음

## 16 그 밖의 참고사항

이보고는우리지식에대한오늘날의상태에대하여평가하고있다, 하지만이보고서는생산특성에관한보증은기술하지않았으며계약적인법률관계에기반을두고있지도않다

· **최초 작성일자:** 2017.06.22

· **개정 횟수 및 최종 개정일자:** 1 / 2017.06.22

· **약어와 두문자어:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

### SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

#### · 1.1 Identificador del producto

· **Nombre comercial:** HOLLANDE'S FIXATIVE

· **Número del artículo:** 64120-01, 64120-04, 64120-10, 64120-20, 64120-30, 64120-10-SP

· **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**

No existen más datos relevantes disponibles.

· **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio

· **1.3 Datos del proveedor de la ficha de datos de seguridad**

· **Fabricante/distribuidor:**

Aname

C/ Perez Galdos no. 2

28693 Quijorna

Madrid, Spain

Tel: +34.91.816.89.50

Fax: +34.91.816.85.94

email: ventas@aname.es

· **Área de información:** Product safety department

· **1.4 Teléfono de emergencia:**

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

· **2.1 Clasificación de la sustancia o de la mezcla**

· **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS08 peligro para la salud

Muta. 2

H341 Se sospecha que provoca defectos genéticos.

Carc. 1B

H350 Puede provocar cáncer.



GHS05 corrosión

Skin Corr. 1B

H314 Provoca quemaduras graves en la piel y lesiones oculares graves.

Eye Dam. 1

H318 Provoca lesiones oculares graves.



GHS09 medio ambiente

Aquatic Chronic 2 H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.



GHS07

Acute Tox. 4

H302 Nocivo en caso de ingestión.

Acute Tox. 4

H312 Nocivo en contacto con la piel.

Acute Tox. 4

H332 Nocivo en caso de inhalación.

Skin Sens. 1

H317 Puede provocar una reacción alérgica en la piel.

STOT SE 3

H335 Puede irritar las vías respiratorias.

( se continua en página 2 )

# Ficha de datos de seguridad según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

**Nombre comercial: HOLLANDE'S FIXATIVE**

( se continua en página 1 )

- **2.2 Elementos de la etiqueta**
- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**  
El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.
- **Pictogramas de peligro**



- **Palabra de advertencia Peligro**
- **Componentes peligrosos a indicar en el etiquetaje:**

formaldehído  
ácido acético  
cupric acetate  
2,4,6-trinitrofenol

- **Indicaciones de peligro**  
H302+H312+H332 *Nocivo en caso de ingestión, contacto con la piel o inhalación.*  
H314 *Provoca quemaduras graves en la piel y lesiones oculares graves.*  
H317 *Puede provocar una reacción alérgica en la piel.*  
H341 *Se sospecha que provoca defectos genéticos.*  
H350 *Puede provocar cáncer.*  
H335 *Puede irritar las vías respiratorias.*  
H411 *Tóxico para los organismos acuáticos, con efectos nocivos duraderos.*

- **Consejos de prudencia**  
P303+P361+P353 *EN CASO DE CONTACTO CON LA PIEL (o el pelo): Quitar inmediatamente todas las prendas contaminadas. Aclararse la piel con agua/ducharse.*  
P305+P351+P338 *EN CASO DE CONTACTO CON LOS OJOS: Aclarar cuidadosamente con agua durante varios minutos. Quitar las lentes de contacto, si lleva y resulta fácil. Seguir aclarando.*  
P310 *Llamar inmediatamente a un CENTRO DE TOXICOLOGÍA/médico.*  
P321 *Se necesita un tratamiento específico (ver en esta etiqueta).*  
P405 *Guardar bajo llave.*  
P501 *Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.*

- **2.3 Otros peligros**
- **Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.

## SECCIÓN 3: Composición/información sobre los componentes

- **3.2 Caracterización química: Mezclas**
- **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.

· **Componentes peligrosos:**

CAS: 50-00-0 EINECS: 200-001-8	formaldehído ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; ☠ Muta. 2, H341; Carc. 1B, H350; ☞ Skin Corr. 1B, H314; ⚠ Skin Sens. 1, H317	10-25%
CAS: 64-19-7 EINECS: 200-580-7	ácido acético ⚠ Flam. Liq. 3, H226; ☞ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H312	2,5-10%

( se continua en página 3 )

# Ficha de datos de seguridad











## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

Nombre comercial: **HOLLANDE'S FIXATIVE**

( se continua en página 2 )

CAS: 6046-93-1 EINECS: 205-553-3	cupric acetate  Aquatic Acute 1, H400;  Aquatic Chronic 1, H410;  Acute Tox. 4, H302;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  STOT SE 3, H335	≤ 2,5%
CAS: 88-89-1 EINECS: 201-865-9	2,4,6-trinitrofenol  Expl. 1.1, H201;  Acute Tox. 3, H301;  Acute Tox. 3, H311;  Acute Tox. 3, H331	≤ 2,5%

· **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

### SECCIÓN 4: Primeros auxilios

#### · 4.1 Descripción de los primeros auxilios

##### · Instrucciones generales:

Quitarse de inmediato toda prenda contaminada con el producto.

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

##### · En caso de inhalación del producto:

Suministrar suficiente aire fresco y, para mayor seguridad, consultar al médico.

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

##### · En caso de contacto con la piel: Lavar inmediatamente con agua y jabón y enjuagar bien.

##### · En caso de con los ojos:

Limpia los ojos abiertos durante varios minutos con agua corriente y consultar un médico.

##### · En caso de ingestión:

Consultar inmediatamente un médico.

Beber mucha agua a respirar aire fresco. Solicitar asistencia médica inmediatamente.

##### · 4.2 Principales síntomas y efectos, agudos y retardados No existen más datos relevantes disponibles.

##### · 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente No existen más datos relevantes disponibles.

### SECCIÓN 5: Medidas de lucha contra incendios

#### · 5.1 Medios de extinción

##### · Sustancias extintoras apropiadas: Combatir los incendios con medidas adaptados al ambiente circundante.

##### · 5.2 Peligros específicos derivados de la sustancia o la mezcla No existen más datos relevantes disponibles.

##### · 5.3 Recomendaciones para el personal de lucha contra incendios

##### · Equipo especial de protección: Colocarse la protección respiratoria.

### SECCIÓN 6: Medidas en caso de vertido accidental

#### · 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia

Llevar puesto equipo de protección. Mantener alejadas las personas sin protección.

#### · 6.2 Precauciones relativas al medio ambiente:

Al penetrar en las aguas o en el alcantarillado, avisar a las autoridades pertinentes.

Diluir con mucha agua.

Evitar que penetre en la canalización /aguas de superficie /agua subterráneas.

#### · 6.3 Métodos y material de contención y de limpieza:

Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).

Utilizar un neutralizador.

Desechar el material contaminado como vertido según ítem 13.

Asegurar suficiente ventilación.

#### · 6.4 Referencia a otras secciones

Ver capítulo 7 para mayor información sobre una manipulación segura.

( se continua en página 4 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

**Nombre comercial: HOLLANDE'S FIXATIVE**

( se continua en página 3 )

Ver capítulo 8 para mayor información sobre el equipo personal de protección.  
Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

- **7.1 Precauciones para una manipulación segura**  
Asegurar suficiente ventilación /aspiración en el puesto de trabajo.  
Abrir y manejar el recipiente con cuidado.  
Evitar la formación de aerosoles.
- **Prevención de incendios y explosiones:** Tener preparados los aparatos respiratorios.
- **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**
- **Almacenamiento:**
- **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.
- **Normas en caso de un almacenamiento conjunto:** No es necesario.
- **Indicaciones adicionales sobre las condiciones de almacenamiento:**  
Mantener el recipiente cerrado herméticamente.
- **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

### SECCIÓN 8: Controles de exposición/protección individual

- **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**  
Sin datos adicionales, ver punto 7.

#### · 8.1 Parámetros de control

- **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**

#### 50-00-0 formaldehído

LEP	Valor de corta duración: 0,37 mg/m <sup>3</sup> , 0,3 ppm
	CIB, Sen, s

#### 64-19-7 ácido acético

LEP	Valor de corta duración: 37 mg/m <sup>3</sup> , 15 ppm
	Valor de larga duración: 25 mg/m <sup>3</sup> , 10 ppm
	VLI

#### 88-89-1 2,4,6-trinitrofenol

LEP	Valor de larga duración: 0,1 mg/m <sup>3</sup>
	VLI

- **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

#### · 8.2 Controles de la exposición

##### · Equipo de protección individual:

##### · Medidas generales de protección e higiene:

Mantener alejado de alimentos, bebidas y alimentos para animales.  
Quitarse de inmediato la ropa ensuciada o impregnada.  
Lavarse las manos antes de las pausas y al final del trabajo.  
Guardar la ropa protectora por separado.  
Evitar el contacto con los ojos.  
Evitar el contacto con los ojos y la piel.

##### · Protección respiratoria:

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

( se continua en página 5 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

Nombre comercial: **HOLLANDE'S FIXATIVE**

( se continua en página 4 )

### · Protección de manos:



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

### · Material de los guantes

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser controlados antes de su utilización.

### · Tiempo de penetración del material de los guantes

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

### · Protección de ojos:

Gafas de protección



Gafas de protección herméticas

## SECCIÓN 9: Propiedades físicas y químicas

### · 9.1 Información sobre propiedades físicas y químicas básicas

#### · Datos generales

#### · Aspecto:

Forma: Líquido

Color: Verde

· Olor: Perceptible

· Umbral olfativo: No determinado.

· valor pH: No determinado.

#### · Cambio de estado

Punto de fusión/punto de congelación: Indeterminado.

Punto inicial de ebullición e intervalo de ebullición: -21 °C

· Punto de inflamación: No aplicable.

· Inflamabilidad (sólido, gas): No aplicable.

· Temperatura de ignición: ~300 °C

· Temperatura de descomposición: No determinado.

· Temperatura de auto-inflamación: El producto no es autoinflamable.

· Propiedades explosivas: El producto no es explosivo.

#### · Límites de explosión:

Inferior: 7,0 Vol %

Superior: 73,0 Vol %

( se continua en página 6 )



# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

Nombre comercial: **HOLLANDE'S FIXATIVE**

( se continua en página 5 )

· <b>Presión de vapor a 20 °C:</b>	1,7 hPa
· <b>Densidad:</b>	Indeterminado.
· <b>Densidad relativa</b>	No determinado.
· <b>Densidad de vapor</b>	No determinado.
· <b>Tasa de evaporación:</b>	No determinado.
· <b>Solubilidad en / miscibilidad con agua:</b>	Completamente mezclable.
· <b>Coefficiente de reparto: n-octanol/agua:</b>	No determinado.
· <b>Viscosidad:</b>	
<b>Dinámica:</b>	No determinado.
<b>Cinemática:</b>	No determinado.
· <b>Concentración del disolvente:</b>	
<b>Disolventes orgánicos:</b>	29,0 %
<b>VOC (CE)</b>	29,00 %
· <b>9.2 Otros datos</b>	No existen más datos relevantes disponibles.

### SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**

- **Toxicidad aguda**

Nocivo en caso de ingestión, contacto con la piel o inhalación.

- **Valores LD/LC50 (dosis letal /dosis letal = 50%) relevantes para la clasificación:**

**50-00-0 formaldehído**

Oral	LD50	>200 mg/kg (rat)
------	------	------------------

- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**  
Provoca quemaduras graves en la piel y lesiones oculares graves.
- **Lesiones o irritación ocular graves**  
Provoca lesiones oculares graves.
- **Sensibilización respiratoria o cutánea**  
Puede provocar una reacción alérgica en la piel.
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**  
Se sospecha que provoca defectos genéticos.
- **Carcinogenicidad**  
Puede provocar cáncer.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

( se continua en página 7 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

Nombre comercial: **HOLLANDE'S FIXATIVE**

( se continua en página 6 )

- **Toxicidad específica en determinados órganos (STOT) – exposición única**  
Puede irritar las vías respiratorias.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Efectos ecotóxicos:**
- **Observación:** Tóxico para peces.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:**  
Nivel de riesgo para el agua 2 (autoclasiificación): peligroso para el agua  
No dejar que se infiltre en aguas subterráneas, aguas superficiales o en alcantarillados.  
En estado no diluido o no neutralizado, no verter en el alcantarillado o en otros sistemas de desagüe.  
Una cantidad mínima vertida en el subsuelo ya representa un peligro para el agua potable.  
Vertido en aguas superficiales, también es tóxico para los peces y el plancton.  
tóxico para organismos acuáticos
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

### SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.
- **Producto de limpieza recomendado:** Agua, eventualmente añadiendo productos de limpieza.

### SECCIÓN 14: Información relativa al transporte

- **14.1 Número ONU**
- **ADR, IMDG, IATA** UN1760
- **14.2 Designación oficial de transporte de las Naciones Unidas**
- **ADR** 1760 LÍQUIDO CORROSIVO, N.E.P. (ÁCIDO ACÉTICO GLACIAL, FORMALDEHÍDO EN SOLUCIÓN), PELIGROSO PARA EL MEDIO AMBIENTE
- **IMDG** CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION), MARINE POLLUTANT
- **IATA** CORROSIVE LIQUID, N.O.S. (ACETIC ACID, GLACIAL, FORMALDEHYDE SOLUTION)

( se continua en página 8 )

**Ficha de datos de seguridad**  
según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

**Nombre comercial: HOLLANDE'S FIXATIVE**

( se continua en página 7 )

· **14.3 Clase(s) de peligro para el transporte**

· **ADR, IMDG**



· **Clase** 8 Materias corrosivas  
· **Etiqueta** 8

· **IATA**



· **Class** 8 Materias corrosivas  
· **Label** 8

· **14.4 Grupo de embalaje**

· **ADR, IMDG, IATA** III

· **14.5 Peligros para el medio ambiente:**

· **Contaminante marino:** El producto contiene materias peligrosas para el medio ambiente: cupric acetate  
· **Marcado especial (ADR):** Símbolo (pez y árbol)  
Símbolo (pez y árbol)

· **14.6 Precauciones particulares para los usuarios**

· **Número Kemler:** Atención: Materias corrosivas  
80  
· **Número EMS:** F-A,S-B  
· **Segregation groups** Acids  
· **Stowage Category** A  
· **Stowage Code** SW2 Clear of living quarters.

· **14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC**

No aplicable.

· **Transporte/datos adicionales:**

· **ADR**  
· **Cantidades limitadas (LQ)** 5L  
· **Cantidades exceptuadas (EQ)** Código: E1  
Cantidad neta máxima por envase interior: 30 ml  
Cantidad neta máxima por embalaje exterior: 1000 ml  
· **Categoría de transporte** 3  
· **Código de restricción del túnel** E

· **IMDG**

· **Limited quantities (LQ)** 5L  
· **Excepted quantities (EQ)** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

( se continua en página 9 )

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

Nombre comercial: **HOLLANDE'S FIXATIVE**

( se continua en página 8 )

· "Reglamentación Modelo" de la UNECE: **UN 1760 LÍQUIDO CORROSIVO, N.E.P. (ÁCIDO ACÉTICO GLACIAL, FORMALDEHÍDO EN SOLUCIÓN), 8, III, PELIGROSO PARA EL MEDIO AMBIENTE**

### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- Directiva 2012/18/UE
- Sustancias peligrosas nominadas - ANEXO I formaldehído
- Categoría Seveso E2 Peligroso para el medio ambiente acuático
- Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel inferior 200 t
- Cantidad umbral (toneladas) a efectos de aplicación de los requisitos de nivel superior 500 t
- REGLAMENTO (CE) n° 1907/2006 ANEXO XVII Restricciones: 3
- Disposiciones nacionales:
- Indicaciones sobre las limitaciones de trabajo:  
Los empleados no deben exponerse a las sustancias cancerígenas contenidas en el producto. En casos aislados las autoridades pueden hacer excepciones.
- **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

### SECCIÓN 16: Otra información

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

- **Frases relevantes**
- H201 Explosivo; peligro de explosión en masa.
- H226 Líquidos y vapores inflamables.
- H301 Tóxico en caso de ingestión.
- H302 Nocivo en caso de ingestión.
- H311 Tóxico en contacto con la piel.
- H312 Nocivo en contacto con la piel.
- H314 Provoca quemaduras graves en la piel y lesiones oculares graves.
- H315 Provoca irritación cutánea.
- H317 Puede provocar una reacción alérgica en la piel.
- H319 Provoca irritación ocular grave.
- H331 Tóxico en caso de inhalación.
- H335 Puede irritar las vías respiratorias.
- H341 Se sospecha que provoca defectos genéticos.
- H350 Puede provocar cáncer.
- H400 Muy tóxico para los organismos acuáticos.
- H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.
- **Abreviaturas y acrónimos:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- VOC: Volatile Organic Compounds (USA, EU)

( se continua en página 10 )

**Ficha de datos de seguridad**  
según 1907/2006/CE, Artículo 31

fecha de impresión 22.06.2017

Revisión: 22.06.2017

**Nombre comercial: HOLLANDE'S FIXATIVE**

( se continua en página 9 )

*LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Expl. 1.1: Explosivos – División 1.1**Flam. Liq. 3: Líquidos inflamables – Categoría 3**Acute Tox. 3: Toxicidad aguda – Categoría 3**Acute Tox. 4: Toxicidad aguda – Categoría 4**Skin Corr. 1A: Corrosión o irritación cutáneas – Categoría 1A**Skin Corr. 1B: Corrosión o irritación cutáneas – Categoría 1B**Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2**Eye Dam. 1: Lesiones oculares graves o irritación ocular – Categoría 1**Eye Irrit. 2: Lesiones oculares graves o irritación ocular – Categoría 2**Skin Sens. 1: Sensibilización cutánea – Categoría 1**Muta. 2: Mutagenicidad en células germinales – Categoría 2**Carc. 1B: Carcinogenicidad – Categoría 1B**STOT SE 3: Toxicidad específica en determinados órganos ( exposición única) – Categoría 3**Aquatic Acute 1: Peligroso para el medio ambiente acuático - peligro acuático agudo – Categoría 1**Aquatic Chronic 1: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 1**Aquatic Chronic 2: Peligroso para el medio ambiente acuático - peligro acuático a largo plazo – Categoría 2*

ES