







Section 1. Identification of the Substance/Mixture and the Company

1.1 Product Identifier	Product Name: Hollande's Fixative Product Number: HFV	
1.2 Intended use	EN: Laboratory reagent. For professional use only. DA: Laboratoriereagens. Kun til professionelt brug. DE: Laboratoriumreagens. Alleen voor professioneel gebruik. EL: Αντιδραστήριο εργαστηρίου. Για επαγγελματική χρήση μόνο. ES: Reactivo de laboratorio. Sólo para uso profesional. FR: Réactif de laboratoire. Pour un usage professionnel uniquement. IT: Laboratorio di reagente. Solo per uso professionale. NL: Laboratoriumreagens. Alleen voor professioneel gebruik. PT: Reagente de laboratório. Para uso profissional. SV: Laboratoriereagens. Endast för yrkesmässig användning.	
1.3 Details of the supplier of the safety data sheet	Manufacturer	ScyTek Laboratories, Inc.
	Address	205 South 600 West Logan, Utah 84321 U.S.A.
	Phone Number	800-729-8350
	Fax Number	435-755-0015
	e-mail	msds@scytek.com
	Website	scytek.com

Section 2. Hazards Identification

2.1 GHS Classification	Flammable liquids (Category 4), H227 Acute toxicity, Oral (Category 4), H302 Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318 Germ cell mutagenicity (Category 2), H341 Skin sensitisation (Category 1), H317 Carcinogenicity (Category 2), H351 Specific target organ toxicity - single exposure (Category 1), H370	
Classification: Directive 1999/45/EC		Xn, R20/21/22, R45; S26, S45, S51, S60 EN: Harmful DA: Sundhedsskadelig DE: Gesundheitsschädlich EL: Επιβλαβές ES: Nocivo FR: Nocif IT: Nocivo NL: Schadelijk

	PT: Nocivo SV: Hälsoskadlig  C EN: Corrosive DA: Ætsende DE: Ätzend EL: Διαβρωτικό ES: Corrosivo FR: Corrosif IT: Corrosivo NL: Bijtend PT: Corrosivo SV: Frätande For full text of R- & S- phrases: see Section 15.		
2.2 Label Elements	Pictogram(s): Signal word: Hazard statement(s): Precautionary statement(s):	   Danger H227 – Combustible Liquid H302 – Harmful if swallowed. H318 – Causes serious eye damage H351 – Suspected of causing cancer H335 – May cause respiratory irritation H341 – Suspected of causing genetic defects. H318 – Causes serious eye damage H315 – Causes skin irritation H370 – Causes damage to organs P302+ P352 - IF ON SKIN: Wash with plenty of soap and water. P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes. P301 + P310 + P305 - IF SWALLOWED / IF IN EYES: Immediately call a POISON CENTER or doctor/ physician.	
NFPA Scale: 0-4			
HMIS (U.S.A.) Scale: 0-4	HEALTH	3	
	FLAMMABILITY	1	
	PHYSICAL HAZARD	0	
	PERSONAL PROTECTION	H	

2.3 Other Hazards








PBT: This mixture does not contain any substances that are assessed to be a PBT.
vPvB: This mixture does not contain any substances that are assessed to be a vPvB.

Section 3. Composition and Information on Ingredients

3.2 Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

*May contain additional active ingredients at concentrations <0.1%/w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Formaldehyde	50-00-0	200-001-8	 Warning. 2 H315 Causes skin irritation.  Warning. 1. H400 Very toxic to aquatic life . 1. H410 Very toxic to aquatic life with long lasting effects.	≤ 4
Acetic Acid	64-19-7	200-580-7	 Warning. 3, H226 Flammable liquid and vapour.  Danger. 1A H314 Causes severe skin burns and eye damage.	≤ 2
Cupric Acetate	142-71-2	205-553-3	 H302 Harmful if Swallowed, H314 Causes severe skin burns and eye damage   Very toxic to aquatic life with long lasting effects.	≤ 3

Section 4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	May react explosively when exposed to heat. Flammable.
5.3 Advice for firefighters	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures	Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.
6.2 Environmental precautions	Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.
6.3 Methods and materials for containment and cleaning up	Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

Section 7. Handling and Storage

7.1 Precautions for safe handling.	Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapor.
7.2 Conditions for safe storage, including any incompatibilities.	Store in well ventilated area. Keep container tightly closed. Store at 15-30°C.
7.3 Specific end use(s).	See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	<p>Exposure Limits:</p> <p>Acetic acid, glacial: ACGIH TLV: 15ppm (37 mg/m³) STEL 10 ppm (25 mg/m³) TWA NIOSH REL: 15 ppm (37 mg/m³) STEL 10 ppm (25 mg/m³) TWA OSHA PEL: 10 ppm (25 mg/m³) TWA</p> <p>Formaldehyde: NIOSH REL: Ca TWA 0.016 ppm C 0.1 ppm OSHA PEL: [1910.1048] TWA 0.75 ppm ST 2 ppm ACGIH TLV: 0.3 ppm C</p>
8.2 Exposure controls	<p>Personal Protective Equipment (PPE):</p> <p>Eye/Face protection. Safety glasses or goggles are required.</p> <p>Skin protection.</p>

	Protective clothing is required. Hand protection. Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. Respiratory protection. Avoid breathing vapor. Environmental exposure controls. Avoid releasing large quantities into the environment. No additional information.
Engineering Controls	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Unknown
Odor	Strong formaldehyde odor.
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown
Explosive Properties	Not explosive.
Oxidizing Properties	Unknown

Section 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.
10.4 Conditions to Avoid	Fire, static electricity, direct sunlight.

10.5 Incompatible Materials	Acids, anhydrides, aniline, bases, isocyanates, metals, oxidizing agents, phenols, reducing agents.
10.6 Hazardous Decomposition Materials	Oxides of carbon and nitrogen.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	Acute Toxicity. No relevant data available Skin Corrosion/Irritation. Irritating to skin and mucous membranes. Serious Eye Damage/Irritation. Corrosive to eye. Respiratory or skin sensitization. Formaldehyde may act as a skin sensitizer Germ Cell Mutagenicity. No relevant data available.
Carcinogenicity.	International Agency for Research on Cancer (IARC). The IARC classifies formaldehyde into Group 1, Carcinogenic to humans National Toxicology Program (NTP). NTP Formaldehyde classification: Known to be a human carcinogen

Section 12. Ecological Information


12.1 Toxicity	Fish: No relevant studies identified. Crustacea: No relevant studies identified. Algae/Aquatic Plants: No relevant studies identified. Other Organisms: No relevant studies identified.
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.
12.4 Mobility in Soil.	Miscible in water. May spread in water systems. This component is non-volatile.
Additional Remarks	None.
12.5 Results of PBT and vPvB Assessment.	PBT: This mixture does not contain any substances that are assessed to be a PBT. vPvB: This mixture does not contain any substances that are assessed to be a vPvB.

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number DOT, IATA,IMDG, ADR	DOT: 3265 ADR/RID: 3265 IMDG: 3265 IATA: 3265
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14.2 UN Proper Shipping Name DOT, IATA,IMDG, ADR	ADR/RID: Corrosive Liquid, Acidic, Organic, N.O.S. (Formaldehyde, Acetic acid) IMDG: Corrosive Liquid, Acidic, Organic, N.O.S. (Formaldehyde, Acetic acid) IATA: Corrosive Liquid, Acidic, Organic, N.O.S. (Formaldehyde, Acetic acid) DOT: Corrosive Liquid, Acidic, Organic, N.O.S. (Formaldehyde, Acetic acid)
14.3 Transport Hazard Class(es)	DOT: 8 IATA: 8 IMDG: 8 ADR/RID: 8 
14.4 Packing Group DOT, IATA,IMDG, ADR	ADR/RID: III IMDG: III IATA: III DOT: III
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	Formaldehyde is known to cause cancer.
Right To Know Components	<p>Listed on Right to Know: Acetic Acid, CAS# 64-19-7 California Massachusetts Minnesota New Jersey Pennsylvania Rhode Island</p> <p>Listed on Right to Know: Formaldehyde, CAS# 50-00-0 California Massachusetts Minnesota New Jersey Pennsylvania Rhode Island</p>
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture by ScyTek Laboratories, Inc.
R phrases	R20/21/22 EN: Harmful by inhalation, in contact with skin and if swallowed. DA: Farlig ved indånding, ved hudkontakt og ved indtagelse. DE: Gesundheitsschädlich beim Einatmen, Verschlucken und Berührung mit der Haut.

	<p>EL: Επιβλαβές όταν εισπνέεται, σε επαφή με το δέρμα και σε περίπτωση καταπόσεως. ES: Nocivo por inhalación, por ingestión y en contacto con la piel. FR: Nocif par inhalation, par contact avec la peau et par ingestion. IT: Nocivo per inalazione, contatto con la pelle e per ingestione. NL: Schadelijk bij inademing, opname door de mond en aanraking met de huid. PT: Nocivo por inalação, em contacto com a pele e por ingestão. SV: Farligt vid inandning, hudkontakt och förtäring.</p> <p>R45 EN: May cause cancer. DE: Kann Krebs erzeugen. FR: Peut provoquer le cancer. IT: Può provocare il cancro. ES: Puede causar cáncer. FR: Risque de lésions oculaires graves. IT: Rischio di gravi lesioni oculari. NL: Gevaar voor ernstig oogletsel. PT: Risco de lesões oculares graves. SV: Risk för allvarliga ögonskador.</p>
<p>S phrases</p>	<p>S26 EN: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. DA: Kommer stoffet i øjnene, skylles straks grundigt med vand og læge kontaktes. DE: Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren. EL: Σε περίπτωση επαφής με τα μάτια πλύνετε τα αμέσως με άφθονο νερό και ζητήστε ιατρική συμβουλή. ES: En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico. FR: En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste. IT: In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico. NL: Bij aanraking met de ogen onmiddellijk met overvloedig water afspoelen en deskundig medisch advies inwinnen. PT: Em caso de contacto com os olhos, lavar imediata e abundantemente com água e consultar um especialista. SV: id kontakt med ögonen, spola genast med mycket vatten och kontakta läkare.</p> <p>S45 EN: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). DA: Ved ulykkestilfælde eller ved ildebefindende er omgående lægebehandling nødvendig; vis etiketten, hvis det er muligt. DE: Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen). EL: Σε περίπτωση ατυχήματος ή αν αισθανθείτε αδιαθεσία ζητήστε αμέσως ιατρική συμβουλή (δείξτε την ετικέτα αν είναι δυνατό). ES: En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele la etiqueta). FR: En cas d'accident ou de malaise, consulter immédiatement un medecin (si possible lui montrer l'etiquette). IT: In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta). NL: Bij een ongeval of indien men zich onwel voelt, onmiddellijk een arts raadplegen (indien mogelijk hem dit etiket tonen). PT: Em caso de acidente ou de indisposição, consultar imediatamente o médico (se possível mostrar-lhe o rótulo). SV: Vid olycksfall, illamående eller annan påverkan, kontakta omedelbart läkare. Visa om möjligt etiketten.</p> <p>S51 EN: Use only in well-ventilated areas. DA: Må kun bruges på steder med god ventilation. DE: Nur in gut gelüfteten Bereichen verwenden.</p>

	<p>EL: Να χρησιμοποιείται μόνο σε καλά αεριζόμενο χώρο. ES: Úsese únicamente en lugares bien ventilados. FR: Utiliser seulement dans des zones bien ventilées. IT: Usare soltanto in luogo ben ventilato. NL: Uitsluitend op goed geventileerde plaatsen gebruiken. PT: Utilizar somente em locais bem ventilados. SV: Sörj för god ventilation.</p> <p>S60 EN: This material and its container must be disposed of as hazardous waste. DA: Undgå udledning til miljøet. Se særlig vejledning/leverandørbrugsanvisning. DE: Dieses Produkt und sein Behälter sind als gefährlicher Abfall zu entsorgen. EL: Αποφύγετε την ελευθέρωσή του στο περιβάλλον. Αναφερθείτε σε ειδικές οδηγίες/.ελτίο δεδομένων ασφαλείας. ES: Elimínense el producto y su recipiente como residuos peligrosos. FR: Éliminer le produit et son récipient comme un déchet dangereux. IT: Questo materiale e il suo contenitore devono essere smaltiti come rifiuti pericolosi. NL: Deze stof en de verpakking als gevaarlijk afval afvoeren. PT: Este produto e o seu recipiente devem ser eliminados como resíduos perigosos. SV: Detta material och dess behållare skall tas om hand som farligt avfall.</p>
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Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. ScyTek Laboratories shall not be held liable for any damage resulting from handling or from contact with the above product.