

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name HistoChoice Tissue Fixative A

Other means of identification

Product Code(s) H112

UN/ID no. 1170

Synonyms No information available

Recommended use of the chemical and restrictions on use

Recommended Use For Further Manufacturing Use Only.

Uses advised against Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet

Company Address

VWR International, LLC
 Radnor Corporate Center
 100 Matsonford Road
 Radnor, PA 19087-8660

Manufacturer Address

VWR International, LLC
 28600 Fountain Parkway
 Solon, Ohio 44139

Company Phone Number 1-800-448-4442

E-mail Address info@amresco-inc.com

Emergency Telephone Number

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Sensitization	Category 1
Carcinogenicity	Category 1A
Flammable liquids	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

H317 - May cause an allergic skin reaction

H350 - May cause cancer

H226 - Flammable liquid and vapor



Appearance Colorless to slightly yellow haze-free	Physical State Liquid	Odor No information available
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Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ ventilating / lighting/ .? / equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see .? on this label)
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not regulated

Other Information**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Ethanol	64-17-5	200-578-6	10-20	Not applicable
Isopropyl Alcohol	67-63-0	200-661-7	1-5	Not applicable
Glyoxal	107-22-2	203-474-9	0.5-1.0	Not applicable
Sodium hydroxide	1310-73-2	215-185-5	0-0.5	Not applicable

4. FIRST AID MEASURES**First Aid Measures**

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
Inhalation	Move to fresh air. If not breathing, give artificial respiration.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical

No information available.

Hazardous Combustion Products No information available.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protection Ensure adequate ventilation, especially in confined areas.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethanol 64-17-5	1000 ppm STEL	TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Isopropyl Alcohol 67-63-0	400 ppm STEL TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Glyoxal 107-22-2	TWA: 0.1 mg/m ³	-	-
Sodium hydroxide 1310-73-2	-	TWA: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Appropriate engineering controls**Engineering Measures**

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Avoid contact with eyes. Safety glasses with side-shields.

Skin and Body Protection

Wear protective gloves/clothing.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties**Physical State**

Liquid

Appearance

Colorless to slightly yellow haze-free

Odor

No information available

Color

No information available

Odor Threshold

No information available

Property**Values****Remarks • Method****pH**

No information available

Melting point/freezing point**Boiling Point/Range**

No information available

Flash Point (High in °C)

No information available

Evaporation Rate

No information available

Flammability (solid, gas)

No information available

Flammability Limit in Air

Upper flammability limit:

No information available

Lower flammability limit:

No information available

Vapor pressure

No information available

Vapor Density

No information available

Specific Gravity

1.0

Water Solubility

No information available

Solubility in other solvents

No information available

Partition coefficient

No information available

Autoignition Temperature

No information available

Decomposition Temperature

No information available

Kinematic viscosity

No information available

Dynamic viscosity

No information available

Explosive Properties

No information available

Oxidizing Properties

No information available

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content	No information available
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

No information available.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	There is no data available for this product.
Eye Contact	There is no data available for this product.
Skin Contact	Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
Ingestion	There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h
Isopropyl Alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
Glyoxal 107-22-2	= 200 mg/kg (Rat)	= 12700 mg/kg (Rabbit)	= 2.44 mg/L (Rat) 4 h
Sodium hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethanol 64-17-5	A3	Group 1	Known	X
Isopropyl Alcohol 67-63-0	-	Group 3	-	-

Glyoxal 107-22-2	-	-	-	-
Sodium hydroxide 1310-73-2	-	-	-	-

Reproductive Toxicity
STOT - single exposure
STOT - repeated exposure
Chronic Toxicity

No information available.
 No information available.
 No information available.
 Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Target Organ Effects
Aspiration hazard

Nerves, Liver.
 No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

19.79% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Ethanol 64-17-5	-	13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static 10800: 24 h Daphnia magna mg/L EC50
Isopropyl Alcohol 67-63-0	1000: 96 h Desmodemus subspicatus mg/L EC50 1000: 72 h Desmodemus subspicatus mg/L EC50	1400000: 96 h Lepomis macrochirus µg/L LC50 9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static	13299: 48 h Daphnia magna mg/L EC50
Glyoxal 107-22-2	500: 72 h Desmodemus subspicatus mg/L EC50 500: 96 h Desmodemus subspicatus mg/L EC50 348.59: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	215: 96 h Pimephales promelas mg/L LC50 static 460 - 680: 96 h Leuciscus idus mg/L LC50 static	404: 48 h Daphnia magna mg/L EC50
Sodium hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-

Persistence and Degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Ethanol 64-17-5	-0.32
Isopropyl Alcohol 67-63-0	0.05
Glyoxal 107-22-2	-0.85
Sodium hydroxide 1310-73-2	-

Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations.

Contaminated Packaging Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Ethanol 64-17-5	-	-	-	-
Isopropyl Alcohol 67-63-0	-	-	-	-
Glyoxal 107-22-2	-	-	-	-

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Ethanol 64-17-5	-	-	-	-
Isopropyl Alcohol 67-63-0	-	-	-	-
Glyoxal 107-22-2	-	-	-	-
Sodium hydroxide 1310-73-2	-	-	-	-

Chemical Name	California Hazardous Waste Status
Ethanol 64-17-5	Toxic; Ignitable
Isopropyl Alcohol 67-63-0	-
Glyoxal 107-22-2	-
Sodium hydroxide 1310-73-2	-

14. TRANSPORT INFORMATION

DOT

UN/ID no. 1170
 Proper shipping name Ethanol Solutions
 Hazard Class 3
 Packing Group III

IATA

UN/ID no. 1170
 Proper shipping name Ethanol Solutions
 Hazard Class 3
 Packing Group III

15. REGULATORY INFORMATION

International Inventories

TSCA Does not comply
 DSL/NDL Does not comply
 EINECS/ELINCS Does not Comply
 ENCS Does not Comply
 IECSC Complies
 KECL Does not Comply
 PICCS Complies
 AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	SARA 313 - Threshold Values %
Ethanol 64-17-5 (10-20)	-
Isopropyl Alcohol 67-63-0 (1-5)	-
Glyoxal 107-22-2 (0.5-1.0)	-
Sodium hydroxide 1310-73-2 (0-0.5)	-

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ethanol 64-17-5	-	-	-	-
Isopropyl Alcohol 67-63-0	-	-	-	-
Glyoxal 107-22-2	-	-	-	-
Sodium hydroxide 1310-73-2	-	-	-	-

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Ethanol 64-17-5	-	-	-
Isopropyl Alcohol 67-63-0	-	-	-
Glyoxal 107-22-2	-	-	-
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
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Ethanol - 64-17-5	Carcinogen Developmental
Isopropyl Alcohol - 67-63-0	-
Glyoxal - 107-22-2	-
Sodium hydroxide - 1310-73-2	-

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ethanol 64-17-5	X	X	X
Isopropyl Alcohol 67-63-0	X	-	X
Glyoxal 107-22-2	X	-	-
Sodium hydroxide 1310-73-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not regulated

16. OTHER INFORMATION

Issuing Date 09-Jun-2010

Revision Date 08-Jan-2016

Revision Note

No information available

Disclaimer

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

End of Safety Data Sheet