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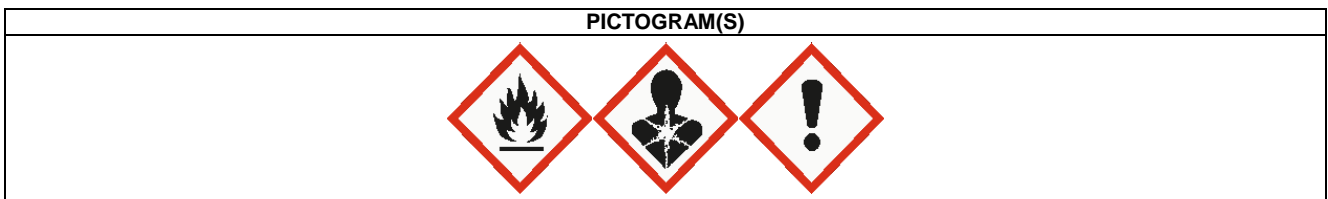
1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE HYDX-20 known as HYDRO-X/20 WTRSOL FLUX 5GA BOX	IDH number:	479627
Product type/use:	Solder	Item number:	M00272
Restriction of Use:	None identified	Region:	United States
Company address:	Contact information:		
Henkel Corporation	Telephone: +1 (860) 571-5100		
One Henkel Way	MEDICAL EMERGENCY Phone: Poison Control Center		
Rocky Hill, Connecticut 06067	1-877-671-4608 (toll free) or 1-303-592-1711		
	TRANSPORT EMERGENCY Phone: CHEMTREC		
	1-800-424-9300 (toll free) or 1-703-527-3887		
	Internet: www.henkelna.com		

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	
DANGER:	ASPIRATION HAZARD IF SWALLOWED. HIGHLY FLAMMABLE LIQUID AND VAPOR. MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. CAUSES SERIOUS EYE IRRITATION. CAUSES DAMAGE TO ORGANS.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	1
ASPIRATION HAZARD	1



Precautionary Statements

Prevention: Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, eye protection, and face protection.

Response: IF SWALLOWED: Immediately call a physician or poison control center. If on skin (or hair): Take off immediately all contaminated clothing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed: Call a poison center or physician. Do NOT induce vomiting. If eye irritation persists: Get medical attention. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

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

Disposal: Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
2-Propanol	67-63-0	10 - 20
Methanol	67-56-1	10 - 20
Glycerol	56-81-5	1 - 5
Polyethylene glycol MW 400	25322-68-3	1 - 5
Citric acid	77-92-9	1 - 5

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). Get medical attention. Wash clothing before reuse.
Eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. Vapors may form explosive mixtures with air.
Hazardous combustion products:	Oxides of carbon. Thermal decomposition can lead to release of irritating gases and vapors.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Evacuate personnel to safe areas. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a closed metal container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Keep away from heat, spark and flame. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Avoid generating static electricity while handling. Use proper grounding procedures when handling near flammable or explosive materials. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full.
Storage:	For safe storage, store between 15 °C (59°F) and 30 °C (86°F) Store away from heat, sparks, flames, or other sources of ignition. Store in original container until ready to use.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
2-Propanol	200 ppm TWA 400 ppm STEL	400 ppm (980 mg/m3) PEL	None	None
Methanol	200 ppm TWA 250 ppm STEL (SKIN)	200 ppm (260 mg/m3) PEL	None	None
Glycerol	10 mg/m3 TWA Inhalable particles. 3 mg/m3 TWA Respirable particles.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust. 15 mg/m3 TWA Total dust. 15 MPPCF TWA Respirable fraction. 50 MPPCF TWA Total dust. 5 mg/m3 TWA Respirable fraction.	None	None
Polyethylene glycol MW 400	None	None	10 mg/m3 TWA	None
Citric acid	None	None	None	None

Engineering controls:	Ensure adequate ventilation, especially in confined areas. Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
Respiratory protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Eye/face protection:	Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.
Skin protection:	Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Blue, to, Green
Odor:	Mild
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	44 mm hg
Boiling point/range:	82 °C (179.6 °F)
Melting point/ range:	Not available.
Specific gravity:	0.79
Vapor density:	Heavier than air.
Flash point:	12 °C (53.6 °F) Closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Flammability:	Not applicable

Evaporation rate:	Not available.
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	100 % EPA Method 24
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use. Electrostatic charge may build-up during handling. Grounding of equipment is recommended.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Oxides of carbon. Thermal decomposition can lead to release of irritating gases and vapors.
Incompatible materials:	Oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Keep away from open flames, hot surfaces and sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Lungs, Eye contact from liquid, aerosols or vapor

Potential Health Effects/Symptoms

Inhalation:	Inhalation of processing fumes may be harmful. Aspiration may cause lung damage.
Skin contact:	May cause skin irritation.
Eye contact:	Causes serious eye irritation.
Ingestion:	This product may be fatal if it is swallowed. Aspiration may occur during swallowing or vomiting, resulting in lung damage.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
2-Propanol	Oral LD50 (Rat) = 5,045 mg/kg Oral LD50 (Mouse) = 3,600 mg/kg Oral LD50 (Rabbit) = 6,410 mg/kg Oral LD50 (Rat) = 4.7 g/kg Oral LD50 (Mouse) = 4.5 g/kg Oral LD50 (Rabbit) = 8.0 g/kg Oral LD50 (Rabbit) = 5.03 g/kg Dermal LD50 (Rabbit) = 12,800 mg/kg	Allergen, Central nervous system, Irritant
Methanol	Oral LD50 (Rat) = 5,628 mg/kg Oral LD50 (Mouse) = 7,300 mg/kg Oral LD50 (Rabbit) = 14.4 g/kg Dermal LD50 (Rabbit) = 15,800 mg/kg	Eyes, Irritant, Metabolic, Nervous System
Glycerol	None	Irritant, Nuisance dust
Polyethylene glycol MW 400	None	Irritant
Citric acid	Oral LD50 (Rat) = 6,730 mg/kg Oral LD50 (Mouse) = 5,040 mg/kg	Allergen, Corrosive, Eyes, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
2-Propanol	No	No	No
Methanol	No	No	No
Glycerol	No	No	No
Polyethylene glycol MW 400	No	No	No
Citric acid	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Alcohols, n.o.s. (Isopropanol, Methanol)
Hazard class or division: 3
Identification number: UN 1987
Packing group: II
DOT Hazardous Substance(s): Methanol

International Air Transportation (ICAO/IATA)

Proper shipping name: Alcohols, n.o.s. (Isopropanol, Methanol)
Hazard class or division: 3
Identification number: UN 1987
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: ALCOHOLS, N.O.S. (Isopropanol, Methanol)
Hazard class or division: 3
Identification number: UN 1987
Packing group: II

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.
TSCA 12 (b) Export Notification: None above reporting de minimis
CERCLA/SARA Section 302 EHS: Ethylene oxide (CAS# 75-21-8).
CERCLA/SARA Section 311/312: Fire, Immediate Health, Delayed Health
CERCLA/SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). Methanol (CAS# 67-56-1).
CERCLA Reportable quantity: Methanol (CAS# 67-56-1) 5,000 lbs. (2,270 kg)
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Product Safety and Regulatory Affairs

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