



Revision Date: 03/21/2005

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: X32-10I LOW SOLID FLUX 1GA BOTTLE
Product type: Liquid Flux
Company address:
Henkel Corporation
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067

Item No.: M00316
Region: United States
Contact Information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.loctite.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous components</u>	<u>%</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
Isopropyl alcohol 67-63-0	60-100	200 ppm TWA 400 ppm STEL	400 ppm TWA 980 mg/m ³ TWA	None
Adipic acid 124-04-9	1-5	5 mg/m ³ TWA	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state: Liquid	HEALTH:	1
Color: Colorless	FLAMMABILITY:	3
Odor: Alcoholic	PHYSICAL HAZARD:	0
	Personal Protection:	See Section 8

WARNING: FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF SWALLOWED OR INHALED.
CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
MAY CAUSE SKIN IRRITATION.

Relevant routes of exposure: Loctite SHARED FIELD (US/Canada/EU)

Potential Health Effects

Inhalation: Vapors and mists will irritate the respiratory tract and nasal passages. Exposure to high doses may cause central nervous system depression. Such doses may also cause adverse effects in the liver, kidneys, and lungs.

Skin contact: May cause skin irritation with discomfort or rash. Harmful if absorbed through skin.

Eye contact: Vapors may irritate eyes. Contact with eyes will cause irritation. Liquid or vapor can cause moderate to severe irritation. May cause corneal injury.

Ingestion: Toxic if swallowed. Extreme overexposure may result in unconsciousness and possibly death.

Existing conditions aggravated by exposure: Other pre-existing skin conditions. Pre-existing skin, respiratory, central nervous system, liver and kidney conditions may be susceptible.

See Section 11 for additional toxicological information.

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4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. Administer oxygen or artificial respiration as needed. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if symptoms occur.
Eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Ingestion:	Drink plenty of water. Call a physician immediately.

5. FIRE-FIGHTING MEASURES

Flash point:	14°C (57°F)
Autoignition temperature:	399°C (750°F)
Flammable/Explosive limits-lower %:	2.0 %
Flammable/Explosive limits-upper %:	12.7 %
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special fire fighting procedures:	Fire fighters should wear positive pressure breathing apparatus.
Unusual fire or explosion hazards:	Vapors may form explosive mixtures with air.
Hazardous combustion products:	Thermal decomposition can lead to release of irritating gases and vapors.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	Do not let product enter drains.
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 container until ready for disposal.

7. HANDLING AND STORAGE

Handling:	Keep away from heat, spark and flame. Keep container closed. Use only with adequate ventilation. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full.
Storage:	Store away from ignition sources. Keep away from heat, sparks and flame. Store in original container until ready to use.
Incompatible products:	Oxidizing and spontaneously flammable products.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide local ventilation for prolonged use in a confined area. In case of insufficient ventilation, wear suitable respiratory equipment.
Respiratory protection:	When workplace hazards warrant the use of a respirator, appropriate respirators must be used, and a program that follows 29 CFR 1910.134 must be followed.

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Skin protection: Chemical resistant, impermeable gloves.

Eye/face protection: Safety goggles or safety glasses with side shields.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid
Color: Colorless
Odor: Alcoholic
Vapor pressure: 6.6 kPa at 25 °C (77 °F)
pH: Not applicable
Boiling point/range: 82°C (180°F)
Melting point/range: Not determined
Specific gravity: 0.79
Vapor density: Heavier than air
Evaporation rate: Not available
Solubility in water: Completely miscible
Partition coefficient (n-octanol/water): Not determined
VOC content: 100%; 790 grams/liter

10. STABILITY AND REACTIVITY

Stability: Stable.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Oxides of carbon.

Incompatibility: Incompatible with oxidising agents. Dissolves aluminium and zinc slowly with formation of hydrogen.

Conditions to avoid: Keep away from open flames, hot surfaces and sources of ignition.

11. TOXICOLOGICAL INFORMATION

Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Isopropyl alcohol 67-63-0	No	No	No
Adipic acid 124-04-9	No	No	No

Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Isopropyl alcohol 67-63-0	Allergen, Blood, Central nervous system, Irritant, Kidney, Liver, Brain, Spleen
Adipic acid 124-04-9	Irritant, Kidney, Liver, Nervous System, Respiratory

12. ECOLOGICAL INFORMATION

Ecological information: No specific studies have been conducted by Henkel on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, groundwater, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of in accordance with Federal, State and local regulations.

EPA hazardous waste number: D001: Ignitable.

14. TRANSPORT INFORMATION

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

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (Isopropanol)
Hazard class or division: 3
Identification number: UN 1993
Packing group: II
DOT reportable quantity (lbs): Adipic acid (CAS# 124-04-9) is reportable at 5000 lbs (2270 Kg)

International Air Transportation (ICAO/IATA):

Proper shipping name: Isopropanol solution
Hazard class or division: 3
Identification number: UN1219
Packing group: II

WaterTransportation (IMO/IMDG):

Proper shipping name: Isopropanol solution
Hazard class or division: 3
Identification number: UN1219
Packing group: II

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification: None.

CERCLA/SARA Section 302 EHS: None.
CERCLA/SARA Section 311/312: Immediate Health Hazard, Fire
CERCLA/SARA 313: Isopropyl alcohol (CAS# 67-63-0).

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status: All other components are listed on or are exempt from listing on the Domestic Substances List.
WHMIS hazard class: D.2.B

16. OTHER INFORMATION

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

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