

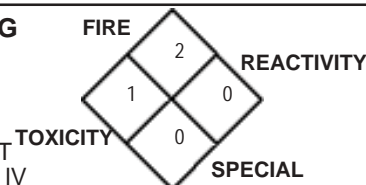


**KLEENCO**<sup>®</sup>  
FOR QUALITY, VALUE AND PERFORMANCE

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For Emergency Assistance  
Call Infotrac **(800) 535-5053**

**HAZARD RATING**  
4 = EXTREME  
3 = HIGH  
2 = MODERATE  
1 = SLIGHT  
0 = INSIGNIFICANT  
\* = SEE SECTION IV



## MATERIAL SAFETY DATA SHEET

PRODUCT NAME <b>D-SOLVER</b>	DATE ISSUED	07-18-95	CODE 008-0414	DOT HAZARD Not Regulated
	PREPARED BY	Dale R. Silbaugh		
FORMULA Proprietary	CHEMICAL NAMES AND OR SYNONYMS Compound Cleaning Liquid			

### I - COMPOSITIONAL INFORMATION/SARA III INFORMATION

INGREDIENTS	CAS NUMBER	OCCUPATION EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
		OSHA PEL	ACGIH TLV	OTHER		
*Diethylene Glycol n-Butyl Ether	112-34-5	None	None	35 PPM	0.1 77°F	3.0
*Diethylene Glycol Monomethyl Ether	1111-77-3	None	None	None	0.1 68°F	4.0

\*Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and 40 CFR 342. NOTE: The precise composition of this mixture is proprietary. A more complete description will be provided to a physician in the event of a medical emergency.

### II - PHYSICAL PROPERTY INFORMATION

APPEARANCE and ODOR Water thin, clear orange liquid			
MELTING POINT Not Applicable	BOILING POINT 240° to 446°F.	COATING V.O.C. Not Applicable	EVAPORATION RATE Slower than ether
SOLUBILITY IN WATER Negligible	SPECIFIC GRAVITY (Water = 1) 0.8	VAPOR DENSITY Heavier than air	

### III - FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT 104°F. (TCC)	AUTO IGNITION TEMPERATURE Not Available	LOWER EXPLOSION LIMIT (%) 0.7	UPPER EXPLOSION LIMIT (%) 24.6
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#### EXTINGUISHING MEDIA

FOAM     CO<sub>2</sub>     DRY CHEMICAL     WATER SPRAY     OTHER

**SPECIAL FIRE FIGHTING PROCEDURES** For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire MSDS.

**UNUSUAL FIRE AND EXPLOSION HAZARDS** Avoid accumulation of water because this product will float on water and may reignite on the surface of the water.

### IV - HEALTH HAZARD INFORMATION

THRESHOLD LIMIT VALUE Not Established	ROUTE(s) OF ENTRY: <input checked="" type="checkbox"/> INHALATION See Health Hazards	<input checked="" type="checkbox"/> SKIN See Health Hazards	<input checked="" type="checkbox"/> INGESTION See Health Hazards
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**HEALTH HAZARDS (Acute and Chronic)** CHRONIC EFFECTS OF EXPOSURE for Petroleum Solvent: Prolonged or repeated exposure to high concentrations may cause kidney and neural dysfunction.

**CARCINOGENICITY:** Not considered to be a carcinogen     NTP     IARC Monographs     OSHA Regulated

**SIGNS AND SYMPTOMS OF EXPOSURE** INHALATION: Vapors and mists may irritate the nose, throat, and mucous membranes. Inhalation of higher concentrations may cause headaches, nausea, vomiting, and coma. Inhalation of very high concentrations or prolonged exposure may cause unconsciousness or death. EYE CONTACT: Liquid and mist may irritate the eyes. SKIN CONTACT: Brief contact may dry the skin. Prolonged or repeated contact may irritate the skin, causing dermatitis. SWALLOWED: Swallowing the liquid may result in vomiting. If vomiting occurs spontaneously, do not allow vomitus to be breathed into the lungs as even a small quantity in the lungs may result in chemical pneumonitis and pulmonary edema/hemorrhage.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE** None Known.

**EMERGENCY AND FIRST AID PROCEDURES** EYES: If this chemical contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention immediately. Contact lenses should not be worn when working with this chemical. SKIN: If this chemical contacts the skin, flush the contaminated skin with water promptly. If this chemical penetrates the clothing, immediately remove the clothing and flush the skin with water promptly. If irritation persists after washing, get medical attention. INHALATION: If a person breathes large amounts of this chemical, move the exposed person to fresh air at once. If breathing has stopped, perform mouth-to-mouth resuscitation. Keep the affected person warm and at rest. Get medical attention as soon as possible. INGESTION: If this chemical has been swallowed, get medical attention immediately.

## V - REACTIVITY INFORMATION

<input checked="" type="checkbox"/> STABLE	<input type="checkbox"/> UNSTABLE	CONDITIONS TO AVOID	None
HAZARDOUS DECOMPOSITION PRODUCTS May liberate carbon monoxide or carbon dioxide.			
HAZARDOUS POLYMERIZATION	<input type="checkbox"/> MAY OCCUR	<input checked="" type="checkbox"/> WILL NOT OCCUR	CONDITIONS TO AVOID Heat, sparks and open flame.
INCOMPATIBILITY (Materials to avoid) Acids, oxidizing materials.			

## VI - SPILL OR LEAK PROCEDURE INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Stop the source of leak or release. Clean up releases as soon as possible, observing precautions in Special Protective Information. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.
WASTE DISPOSAL METHODS	Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental authorities for approved disposal of this material.

## VII - SPECIAL PROTECTION INFORMATION

VENTILATION TYPE	Local mechanical exhaust ventilation, capable of maintaining emissions at the point of use below the PEL.		
RESPIRATORY PROTECTION	Wear a NIOSH-Approved respirator, appropriate for the concentration of vapor or mist encountered at the point of use.		
PROTECTIVE GLOVES	Impervious	EYE PROTECTION	Wear eye protection to prevent any reasonable probability of eye contact.
OTHER PROTECTIVE EQUIPMENT Wear appropriate equipment to prevent any repeated or prolonged skin contact.			

## VIII - STORAGE AND HANDLING INFORMATION

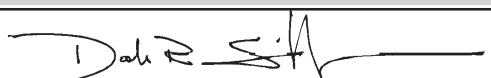
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	Keep out of reach of children. Store in a cool dry place away from incompatible materials. Keep container tightly closed when not in use. Workers should wash immediately when skin becomes contaminated. Work clothing should be changed daily if there is any possibility that the clothing may be contaminated. Remove clothing immediately if it is non-impervious clothing that becomes wet. The following equipment should be available: Eyewash, Quick drench. It is generally recognized that contact lenses should not be worn when working with chemicals because contact lenses may contribute to the severity of the injury.
OTHER PRECAUTIONS	Read and follow label instructions. The label contains information necessary for the proper use of the product. Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full.

## IX - TOXICITY INFORMATION

*HEALTH HAZARDS for Propylene Glycol n-Butyl Ether. INHALATION: Excessive exposure may cause irritation to upper respiratory tract. A single prolonged (hours) excessive inhalation exposure may cause adverse effects. Signs and symptoms of excessive exposure may be central nervous system effects. EYE CONTACT: May cause moderate eye irritation. May cause moderate corneal injury. SKIN CONTACT: Prolonged or repeated exposure may cause skin irritation. SKIN ABSORPTION: A single prolonged exposure may result in the material being absorbed in harmful amounts. The LD50 for skin absorption in rabbits is 1400 mg/kg. The liquid is reported to cause a burning sensation and itchiness at site of contact. Exposure to large amounts may produce anesthetic or narcotic effects. INGESTION: Single dose oral toxicity is low. The oral LD50 for rats is 3300 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury. SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Observations in animals include only increase liver size following repeated exposure. TERATOLOGY (BIRTH DEFECTS): Birth defects are unlikely. Exposures having no adverse effects on the mother should have no effect on the fetus. REPRODUCTIVE EFFECTS: In animal studies, has been shown not to interfere with reproduction. MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Results of in vitro ('test tube') mutagenicity tests have been negative.
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## X - MISCELLANEOUS INFORMATION

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and the removal of the material from eyes, skin and clothing.
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PRODUCT CODE	NA = NOT AVAILABLE	DATE OF ISSUE	SUPERSEDES	SIGNED
008-0414	07-18-95		Any Previous MSDS	

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