

MATERIAL SAFETY DATA SHEET

Product Number:  
Product Description:

019705, 019633, 019646  
Hi-Phi Eluant, Na-C

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Date Prepared: 09/15/88  
Prepared By:

  
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The following information is believed to be accurate and is currently the best information available to us. However, we make no warranties, express or implied, with respect to the information supplied and we assume no liability resulting from its use.

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HAZARDOUS INGREDIENTS/IDENTITY INFORMATION (Section II)  
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HAZARDOUS COMPONENTS	PERCENT SOLUTION	CAS NO.
Sodium Acetate	0.82	127-09-3
Sodium Chloride	5.26	7647-14-5
Sulfolane (Tetramethylene Sulfone)	2.00	126-33-0
Phenol	0.10	108-95-2

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PHYSICAL/CHEMICAL CHARACTERISTICS (Section III)  
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BOILING POINT: Approx 100°C (Note: Approximately 92% water)

SPECIFIC GRAVITY (H2O = 1): Approx 1

MELTING POINT: Approx 0°C

MOLECULAR WEIGHT: N/A

SOLUBILITY IN WATER: Soluble

APPEARANCE AND ODOR: Clear solution with mild sulfur odor

pH 7.4

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**FIRE AND EXPLOSION HAZARD DATA (Section IV)**  
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FLASH POINT (METHOD USED): Nonflammable  
(Note: Approximately 92% water)

FLAMMABLE LIMITS:  
LEL: Unknown  
UEL: Unknown

EXTINGUISHING MEDIA: Carbon Dioxide, Foam, Dry Chemicals, Water

SPECIAL FIRE FIGHTING PROCEDURES:

- \* Fire fighters subject to products of combustion should wear full protective clothing including self-contained breathing apparatus.

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**REACTIVITY DATA (Section V)**  
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STABILITY

UNSTABLE:  
STABLE: X  
CONDITIONS TO AVOID:

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:

- \* Thermal decomposition may release toxic oxides of sulfur.

HAZARDOUS POLYMERIZATION:

MAY OCCUR:  
WILL NOT OCCUR: X  
CONDITIONS TO AVOID:

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HEALTH HAZARD DATA (Section VI)  
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HAZARD CLASS:  
COMPONENT

CERCLA RATINGS (SCALE 0-3)  
Health      Reactivity  
            Fire      Persistence

		-----N/A-----			
Sulfolane (Pure)	Irritant				
Sodium Chloride (Pure)	Irritant	2	0	0	0
Sodium Acetate (Pure)	Irritant	2	0	0	0
Phenol	Poison B	3	2	0	1

ROUTES OF ENTRY

INHALATION?: X  
SKIN?: X  
INGESTION?: X

HEALTH HAZARDS (ACUTE AND CHRONIC):

- \* All compounds may be harmful by inhalation, ingestion or skin absorption.
- \* All compounds will cause eye and/or skin irritation.
- \* All compounds can be irritating to mucous membranes and upper respiratory tract.
- \* In its pure form, phenol is a poison which is rapidly absorbed by skin.
- \* Toxic Hazards

TOXICITY DATA (ref #1)

Sodium Acetate

orl-mus LD50:6891 mg/kg  
skn-rbt 500 mg/24H MLD  
eye-rbt 10 mg MLD  
orl-rat LD50:3530 mg/kg  
orl-mus LD50:4960 mg/kg  
scu-mus LD50:8000 mg/kg  
ivn-mus LD50:335 mg/kg  
ivn-rbt LDLo:1300 mg/kg

Sodium Chloride

orl-rat TDLo:145 gm/kg (7D pre/1-22D preg)  
scu-mus TDLo:13440 mg/kg (2-6D preg)  
skn-rbt 50 mg/24H MLD  
skn-rbt 500 mg/24H MLD  
eye-rbt 100 mg MLD  
eye-rbt 100 mg/24H SEV  
scu-mus TDLo:1900 mg/kg (11D preg)  
scu-muc TDLo:1900 mg/kg (10D preg)  
scu-muc TDLo:2500 mg/kg (10D preg)  
orl-hmn TDLo:12357 mg/kg/23D-C TFX:BPR  
orl-rat LD50:3000 mg/kg  
scu-rat LDLo:3500 mg/kg  
orl-mus LD50:4000 mg/kg  
ipr-mus LD50:2602 mg/kg  
scu-mus LD50:3150 mg/kg  
ivn-mus LD50:645 mg/kg  
ipr-dog LDLo:364 mg/kg  
ivn-dog LDLo:2 gm/kg  
orl-rbt LDLo:8 gm/kg  
ivn-rbt LDLo:1100 mg/kg  
scu-gpg LDLo:2160 mg/kg  
ivn-gpg LDLo:2910 mg/kg

Sulfolane

orl-rat LD50:1540 mg/kg  
ihl-rat LCLo:4700 mg/M<sup>3</sup>/24H  
orl-mus LDLo:1900 mg/kg  
ipr-mus LD50:1250 mg/kg  
ivn-mus LD50:1080 mg/kg  
skn-rbt LD50:3180 mg/kg

Phenol

skn-rbt 500 mg/24H SEV  
skn-rbt 535 mg open SEV  
eye-rbt 5 mg SEV  
mmo-sat 400 uL/plate  
sce-hmn:lym 200 umol/L  
dnd-mam:lym 250 mmol/L  
orl-rat TDLo:14 kg/kg/2Y-C:ETA  
orl-mus TDLo:27 kg/kg/2Y-C:ETA  
skn-mus TDLo:16 gm/kg/40W-I:CARC  
skn-mus TD:4000mg/kg/24W-I:NEO  
orl-hmn LDLo:140 mg/kg  
orl-rat LD50:414 mg/kg  
skn-rat LD50:669 mg/kg  
ipr-rat LD50:250 mg/kg  
scu-rat LDLo:650 mg/kg  
orl-mus LD50:300 mg/kg  
ipr-mus LD50:360 mg/kg  
scu-mus LD50:344 mg/kg  
ivn-mus LD50:112 mg/kg  
orl-dog LDLo:500 mg/kg  
par-dog LDLo:2000 mg/kg  
orl-cat LDLo:80 mg/kg  
scu-cat LDLo:80 mg/kg  
par-cat LDLo:500 mg/kg  
orl-rbt LDLo:420 mg/kg  
skn-rbt LD50:850 mg/kg  
ipr-rbt LDLo:620 mg/kg  
scu-rbt LDLo:620 mg/kg  
ivn-rbt LDLo:180 mg/kg  
par-rbt LDLo:300 mg/kg  
ipr-gpg LDLo:300 mg/kg  
scu-gpg LDLo:450 mg/kg  
scu-frg LDLo:75 mg/kg  
par-frg LDLo:290 mg/kg  
scu-frg LDLo:290 mg/kg

reference #1 DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS  
By Irving Sax  
6th Edition  
Van Nostrand Reinhold Company, Inc.

CARCINOGENICITY:

NTP?: Unknown  
IARC MONOGRAPHS?: Unknown  
OSHA REGULATED?: Unknown

SYMPTOMS AND SIGNS OF EXPOSURE:

- \* Sulfolane is an irritant and moderately toxic if ingested.
- \* Phenol in its pure form is a skin irritant and is a poison rapidly absorbed by the skin. Headache, dizziness, muscular weakness, dimness of vision, ringing in the ears, irregular and rapid breathing, weak pulse, and dyspnea may all develop. When taken internally, there is also nausea, with or without vomiting, severe abdominal pain, and corrosion of the lips, mouth, throat, esophagus and stomach. On the skin, the affected area is white, wrinkled and softened, and there is usually no immediate complaint of pain; later, intense burning is felt.

EMERGENCY AND FIRST AID PROCEDURES:

- \* In case of contact, rinse skin with copious amounts of water.
- \* Flush eyes with copious amounts of water for at least 15 minutes.
- \* If inhaled remove to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen.
- \* Submit to medical examination.

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**PRECAUTIONS FOR SAFE HANDLING AND USE (Section VII)**  
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

- \* Wear appropriate protective clothing and eye protection.
- \* If the spill is large, wear a self-contained breathing apparatus.
- \* Sweep up and store in a suitable waste container.
- \* Wash contaminated areas with soap and water.

WASTE DISPOSAL METHOD:

- \* Dispose of according to local, state and federal laws.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

- \* Work in an area with adequate ventilation.

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**CONTROL MEASURES (Section VIII)**  
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**RESPIRATORY PROTECTION (SPECIFY TYPE)**

\* For large amounts where phenol or sulfolane vapors might be a problem, wear an OSHA approved respirator with an acid prefilter.

**VENTILATION**

LOCAL EXHAUST: Good laboratory ventilation is acceptable.

MECHANICAL (GENERAL):

SPECIAL:

OTHER:

**PROTECTIVE GLOVES:** Disposable laboratory gloves are adequate.

**EYE PROTECTION:** Glasses or goggles.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Labcoats

**WORK/HYGIENIC PRACTICES:** Standard laboratory practices are adequate.