



# Safety Data Sheet Carbon Cathode Solution

Version: 1.3  
Revision date:  
05/01/2019  
Supersedes:  
07/26/2018

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1. Product Identifiers

**Substance Name:** Carbon cathode Solution  
**CAS No.:** NA  
**Product Code:** UIC, Inc. Catalog Number CM300-001

### 1.2. Intended Use of the Product

**Use of the substance/mixture:**  
**Name, Address, and Telephone of the Responsible Party**  
UIC Inc  
16720 Cherry Creek Court  
Joliet, IL 60433  
Phone: (815) 744-4477  
Fax: (815) 744-1561

#### Emergency Telephone Number

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call emergency number: 1-815-474-8753

## 2. Hazards Identification of the product

### 2.1. Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 4), H227  
Acute toxicity, Oral (Category 4), H302  
Acute toxicity, Inhalation (Category 4), H332  
Acute toxicity, Dermal (Category 4), H312  
Skin corrosion (Category 1B), H314  
Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Serious eye damage (Category 1), H318  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
Acute aquatic toxicity (Category 2), H401  
Chronic aquatic toxicity (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2. GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

#### Hazard statement(s)

H227 Combustible liquid.  
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.

H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H401 Toxic to aquatic life.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statement(s)**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before reuse.  
P363 Wash contaminated clothing before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

**2.3. Hazards not otherwise classified (HNOC) or not covered by GHS - none**

### 3. Composition/information on ingredients

#### 3.1. Substances

Chemical name: Dimethyl sulfoxide  
Synonyms: DMSO, Methyl sulfoxide  
Formula: C<sub>2</sub>H<sub>6</sub>OS  
Molecular weight: 78.13 g/mol  
CAS-No.: 67-68-5  
EC-No.: 200-664-3

Chemical name: Ethanolamine  
Synonyms: Monoethanolamine, 2-Aminoethyl alcohol, 2-Aminoethanol  
Formula: C<sub>2</sub>H<sub>7</sub>NO  
Molecular weight: 61.08 g/mol  
CAS-No.: 141-43-5  
EC-No.: 205-483-3  
Index-No.: 603-030-00-8

Chemical name: Tetraethylammonium bromide  
Synonyms: TEA, bromide  
Formula: C<sub>8</sub>H<sub>20</sub>BrN  
Molecular Weight: 210.16 g/mol  
CAS-No.: 71-91-0  
EC-No.: 200-769-4

#### Hazardous components

Component	Classification	Concentration
Dimethyl sulfoxide	Flam. Liq. 4; H227	>75 %
Ethanolamine	Flam. Liq. 4; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Aquatic Acute 2; Aquatic Chronic 3; H227, H302 + H312 + H332, H314, H318, H335, H401, H412	1-10 %
Tetraethylammonium bromide	Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335	1-10 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 4. First Aid Measures

#### 4.1. Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **5. Fire Fighting Measures**

#### **5.1. Extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2. Special hazards arising from the substance or mixture**

Carbon oxides, sulfur oxides, nitrogen oxides (NOx), Hydrogen bromide gas

#### **5.3. Advice for firefighters**

Wear full protective clothing and NIOSH-MSHA approved SCBA. Keep fire exposed containers cool with water spray.

#### **5.4. Further information**

Above the flash point, vapor-air mixture is explosive. Vapors heavier than air may flow along the ground to distant ignition sources and flashback.

### **6. Accidental Release Measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Immediately contact environmental supervisor. Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

#### **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### **6.3. Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

#### **6.4. Reference to other sections**

For disposal see section 13.

### **7. Handling and Storage**

#### **7.1 Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Avoid formation of dust and aerosols.

Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection

For precautions see section 2.2.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a cool, dry and well-ventilated place far from heat or ignition sources. Isolate from oxidizing agents.

Strongly hygroscopic

Handle and store under inert gas.

Storage class (TRGS 510): Combustible, corrosive hazardous materials

#### **7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. Exposure Controls and Personal Protection

### 8.1. Control Parameters

#### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis	
Dimethyl sulfoxide	67-68-5	TWA	250.000000 ppm	USA. Workplace Environmental Exposure Levels (WEEL)	
Ethanolamine	141-43-5	TWA	3 ppm	USA. ACGIH Threshold Limit Values (TLV)	
	Remarks	Eye irritation Skin irritation			
		TWA	3.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)	
		Eye irritation Skin irritation			
		STEL	6 ppm	USA. ACGIH Threshold Limit Values (TLV)	
		Eye irritation Skin irritation			
		TWA	3 ppm 6 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	
		The value in mg/m3 is approximate.			
		TWA	3.000000 ppm 6.000000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants	
		The value in mg/m3 is approximate.			
TWA	3.000000 ppm 8.000000 mg/m3	USA. NIOSH Recommended Exposure Limits			
ST	6.000000 ppm 15.000000 mg/m3	USA. NIOSH Recommended Exposure Limits			
Tetraethylammonium bromide	Contains no substances with occupational exposure limit values.				

### 8.2. Exposure Controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles or face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Full contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0.6 mm

Break through time: 480 min

Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

##### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: 38 min

Material tested: Dermatril® P (KCL 743 / Aldrich Z677388, Size M)

Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid
b) Color	Color depends on pH: clear or light yellow when acidic, blue when basic.
c) Odor	Mild ripe olive, vegetable odor.
d) Odor Threshold	No data available
e) pH	No data available
f) Melting point/freezing point	No data available
g) Initial boiling point and boiling range	140-190°C
h) Flash point	93°C (COC)
i) Evaporation rate	4.3 (CCl4 = 1)
j) Flammability (solid, gas)	No data available
k) Upper/lower flammability or explosive limits	No data available
l) Vapor pressure	0.46 @ 20°C
m) Vapor density	2.70 - (Air = 1.0)
n) Relative density	No data available
o) Water solubility	Miscible
p) Partition coefficient: n-octanol/water	No data available
q) Auto-ignition temperature	No data available
r) Decomposition temperature	No data available
s) Viscosity	No data available
t) Specific gravity	1.09
u) Explosive properties	Not explosive
v) Oxidizing properties	The substance or mixture is not classified as oxidizing.

### 9.2 Other safety information

No data available

## 10. Stability and Reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

Strong oxidizing agents, acids, alkali metals, and carbon dioxide.

### 10.6 Hazardous decomposition products

Emits toxic oxides of nitrogen, carbon, sulfur, and ammonia, bromine, or bromine compounds when heated to decomposition. May produce formaldehyde and methyl mercaptan.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

	Dimethyl sulfoxide	Ethanolamine	Tetraethylammonium bromide
<b>Acute toxicity</b>	LD50 Oral - Rat - 14,500 mg/kg  LC50 Inhalation - Rat - 4 h - 40250 ppm  LD50 Dermal - Rabbit - > 5,000 mg/kg  No data available	LD50 Oral - Rat - male and female - 1,089 mg/kg (OECD Test Guideline 401)  Inhalation: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.  LD50 Dermal - Rabbit - 1,015 mg/kg No data available	LD50 Oral - mouse - > 2,000 mg/kg  Remarks: Lungs, Thorax, or Respiration: Other changes.  Dermal: no data available  No data available
<b>Skin corrosion/irritation</b>	No data available	Skin – Rabbit Result: Causes burns (OECD Test Guideline 404)	No data available
<b>Serious eye damage/eye irritation</b>	No data available	Eyes – Rabbit Result: Corrosive (OECD Test Guideline 405)	No data available
<b>Respiratory or skin sensitization</b>	No data available	No data available	No data available
<b>Germ cell mutagenicity</b>	Mouse  Lymphocyte Cytogenetic analysis	No data available  Ames test Salmonella typhimurium	no data available

	<p>Mouse Lymphocyte Mutation in mammalian somatic cells</p> <p>Rat Cytogenetic analysis</p> <p>Mouse DNA damage</p>	<p>Result: negative OECD Test Guideline 474 Mouse - male and female</p> <p>Result: negative</p>	
<b>Carcinogenicity</b>	<p>Carcinogenicity - Rat – Oral</p> <p>Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin and Appendages: Other: Tumors.</p> <p>Carcinogenicity - Mouse – Oral</p> <p>Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin and Appendages: Other: Tumors.</p>	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p>	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p>



	<p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.</p>		
<b>Reproductive toxicity</b>	<p>Reproductive toxicity - Rat – Intraperitoneal Effects on Fertility: Abortion.</p> <p>Reproductive toxicity - Rat – Intraperitoneal Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).</p>	<p>No data available</p> <p>No data available</p>	<p>no data available</p> <p>no data available</p>

	<p>Reproductive toxicity - Rat – Subcutaneous</p> <p>Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).</p> <p>Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth).</p> <p>Reproductive toxicity - Mouse – Oral</p> <p>Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).</p> <p>Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.</p> <p>Developmental Toxicity - Mouse – Intraperitoneal</p> <p>Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.</p>		
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<b>Specific target organ toxicity - single exposure</b>	No data available	No data available	Inhalation - May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure</b>	No data available	No data available	no data available
<b>Aspiration hazard</b>	No data available	No data available	no data available
<b>Additional Information</b>	<p>RTECS: PV6210000</p> <p>Effects due to ingestion may include: Nausea, Fatigue, Headache</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p> <p>Eyes - Eye disease - Based on Human Evidence</p> <p>Eyes - Eye disease - Based on Human Evidence</p>	<p>RTECS: KJ5775000</p> <p>burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p> <p>Liver - Irregularities - Based on Human Evidence</p> <p>Liver - Irregularities - Based on Human Evidence</p>	<p>RTECS: BS5950000</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p> <p>Stomach - Irregularities - Based on Human Evidence</p> <p>Stomach - Irregularities - Based on Human Evidence</p>

## 12. Ecological Information

This product has not been studied as a mixture.

Dimethyl sulfoxide	Ethanolamine
<b>12.1. Toxicity</b>	
Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,000 mg/l - 96 h LC50 - Oncorhynchus mykiss (rainbow trout) - 35,000 mg/l - 96 h	Toxicity to fish semi-static test LC50 - Cyprinus carpio (Carp) - 150 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 24,600 mg/l - 48 h (OECD Test Guideline 202)	Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 65 mg/l - 48 h
Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - 17,000 mg/l - 72 h (OECD Test Guideline 201)	Toxicity to algae static test EC50 - Selenastrum capricornutum (green algae) - 2.8 mg/l - 72 h (OECD Test Guideline 201)
	Toxicity to bacteria EC50 - Pseudomonas putida - 110 mg/l - 17 h (DIN 38 412 Part 8)
<b>12.2 Persistence and degradability</b>	
Biodegradability Result: 31 % - According to the results of tests of biodegradability this product is not readily biodegradable. (OECD Test Guideline 301D)	Biodegradability aerobic - Exposure time 28 d Result: > 70 % - Readily biodegradable (OECD Test Guideline 301F)
<b>12.3 Bioaccumulative potential</b>	
No data available	No data available
<b>12.4 Mobility in soil</b>	
No data available	No data available
<b>12.5 Results of PBT and vPvB assessment</b>	
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
<b>12.6 Other adverse effects</b>	
No data available Stability in water - 0.12 - 1.2 h at 30 °C Remarks: Hydrolyses readily	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life

## 13. Disposal Considerations

### 13.1 Waste treatment methods

#### Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contain spill with absorbent, do not allow material to enter streams or waterways. Place in a clean, dry container for disposal in an approved waste facility according to Federal, State and Local regulations.

#### Contaminated packaging

Dispose of as unused product

## 14. Transport Information

### DOT (US)

Not regulated

### IMDG

Not regulated

### IATA

Not regulated

## 15. Regulatory Information

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

### Massachusetts Right to Know Components

	CAS-No.	Revision Date
Ethanolamine	141-43-5	2007-03-01

### Pennsylvania Right to Know Components

	CAS-No.	Revision Date
Dimethyl sulfoxide	67-68-5	2007-03-01
Ethanolamine	141-43-5	2007-03-01
Tetraethylammonium bromide	71-91-0	

### New Jersey Right to Know Components

	CAS-No.	Revision Date
Dimethyl sulfoxide	67-68-5	2007-03-01
Ethanolamine	141-43-5	2007-03-01
Tetraethylammonium bromide	71-91-0	

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. Other Information

Full text of H-Statements referred to under sections 2 and 3.

### Dimethyl sulfoxide

Flam. Liq. Flammable liquids

H227 Combustible liquid

### Ethanolamine

Acute Tox. -Acute toxicity

Aquatic Acute -Acute aquatic toxicity

Aquatic Chronic -Chronic aquatic toxicity

Eye Dam. -Serious eye damage

Flam. Liq. -Flammable liquids

H227 Combustible liquid.  
H302 Harmful if swallowed.  
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.

**Tetraethylammonium bromide**

Eye Irrit. -Eye irritation  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
Skin Irrit. -Skin irritation  
STOT SE -Specific target organ toxicity - single exposure

**HMIS Rating**

**Dimethyl sulfoxide**

Health hazard: 0  
Chronic Health Hazard: \*  
Flammability: 2  
Physical Hazard 0

**Ethanolamine**

Health hazard: 3  
Chronic Health Hazard: \*  
Flammability: 2  
Physical Hazard 0

**Tetraethylammonium bromide**

Health hazard: 2  
Chronic Health Hazard: \*  
Flammability: 0  
Physical Hazard 0

**NFPA Rating**

**Dimethyl sulfoxide**

Health hazard: 0  
Fire Hazard: 2  
Reactivity Hazard: 0

**Ethanolamine**

Health hazard: 3  
Fire Hazard: 2  
Reactivity Hazard: 0

**Tetraethylammonium bromide**

Health hazard: 2  
Fire Hazard: 0  
Reactivity Hazard: 0

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. COMBUSTIBLE LIQUID AND VAPOR.

**Product Use:** Laboratory Reagent

**Further information**

UIC, Inc. has obtained the most current chemical information available to us in updating this Safety Data Sheet. However, users should always use caution when working with chemicals, as UIC, Inc. assumes no liability resulting from its use. Additionally, we make no warranty with respect to any information published on this sheet, either stated or implied.

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