

SAFETY DATA SHEET

## Grenade Igniter Case Sealant 47422

### SECTION 1: IDENTIFICATION

#### 1.1. Product identifier

*Trade name:* Grenade Igniter Case Sealant 47422  
*Product no.:* MS-47422

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

*Relevant identified uses of the substance or mixture:* Sealant  
Restricted to professional users.  
*Uses advised against :* None known.

#### 1.3. Details of the supplier of the safety data sheet

*Company and address:* **Hernon Manufacturing Inc**  
121 Tech Drive  
FL 32771 Sanford  
USA  
T: +1-407-322-4000  
www.hernon.com

*Contact person:* Hernon SDS Coordinator  
*E-mail:* customerservice@hernon.com

*SDS date:* 10/30/2024

*SDS Version:* 2.0

*Date of previous version:* 10/30/2024 (1.0)

#### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webpoisoncontrol (triage.webpoisoncontrol.org) to get specific guidance for your case.

VelocityEHS:

+1-800-255-3924 (USA)

+1-813-248-0585 (International)

1-300-954-583 (Australia)

0-800-591-6042 (Brazil)

400-120-0751 (China)

000-800-100-4086 (India)

800-099-0731 (Mexico)

Contract #: (MIS0002665)

### SECTION 2: HAZARD(S) IDENTIFICATION

#### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

## 2.1. Classification of the substance or mixture

Skin Corr. 1A; H314, Causes severe skin burns and eye damage.  
Skin Sens. 1; H317, May cause an allergic skin reaction.  
Eye Dam. 1; H318, Causes serious eye damage.  
STOT SE 3; H335, May cause respiratory irritation.  
Carc. 1B; H350, May cause cancer.  
Repr. 1B; H360Fd, May damage fertility. Suspected of damaging the unborn child.  
STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

## 2.2. Label elements

Hazard pictogram(s):



Signal word:

Danger

Hazard statement(s):

Causes severe skin burns and eye damage. (H314)  
May cause an allergic skin reaction. (H317)  
May cause respiratory irritation. (H335)  
May cause cancer. (H350)  
May damage fertility. Suspected of damaging the unborn child. (H360Fd)  
May cause damage to organs through prolonged or repeated exposure. (H373)

Precautionary statement(s):

General:

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Prevention:

Obtain special instructions before use. (P201)  
Do not breathe vapour/mist. (P260)  
Contaminated work clothing should not be allowed out of the workplace. (P272)  
Wear eye protection/protective clothing. (P280)

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. (P301+P330+P331)  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. (P303+P361+P353)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)  
IF exposed or concerned: Get medical advice/attention. (P308+P313)  
Immediately call a POISON CENTER/doctor. (P310)  
Get medical advice/attention if you feel unwell. (P314)  
If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
Take off contaminated clothing and wash it before reuse. (P362+P364)

Storage:

Store in a well-ventilated place. Keep container tightly closed. (P403+P233)

Disposal:

Dispose of contents/container in accordance with local regulation (P501)

Additional labelling:

Restricted to professional users.

## 2.3. Other hazards

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Triethylene Glycol Dimethacrylate	CAS No.: 109-16-0	60-100%	Skin Sens. 1B, H317	
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate	CAS No.: 15625-89-5	5-10%	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Carc. 2, H351	
acrylic acid	CAS No.: 79-10-7	3-7%	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Acute Tox. 4, H332 STOT SE 3, H335 (SCL: 1.00 %)	
Hydroxycyclohexyl phenyl ketone	CAS No.: 947-19-3	1-5%		
Cumene hydroperoxide	CAS No.: 80-15-9	1-5%	Org. Perox. E, H242 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 (SCL: 10.00 %) Skin Irrit. 2, H315 (SCL: 3.00 %) Eye Dam. 1, H318 Acute Tox. 3, H331 STOT SE 3, H336 STOT RE 2, H373	
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	CAS No.: 162881-26-7	0.5-2%	Skin Sens. 1A, H317	
Cumene	CAS No.: 98-82-8	0.1-1%	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 Carc. 1B, H350	
diphenyl(2,4,6-trimethylbenzoyl)phosphi	CAS No.: 75980-60-8	0.1-1%	Skin Sens. 1B, H317 Repr. 1B, H360Fd	

ne oxide				
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Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

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**SECTION 4: FIRST-AID MEASURES**

**4.1. Description of first aid measures**

<i>General information:</i>	If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
<i>Inhalation:</i>	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
<i>Skin contact:</i>	Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment. Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
<i>Eye contact:</i>	If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.
<i>Ingestion:</i>	In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.
<i>Burns:</i>	Not applicable.

**4.2. Most important symptoms and effects, both acute and delayed**

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

#### **Information to medics**

Bring this safety data sheet or the label from this product.

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Sulphur oxides

Nitrogen oxides (NO<sub>x</sub>)

Carbon oxides (CO / CO<sub>2</sub>)

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

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

Contaminated areas may be slippery.

### **6.2. Environmental precautions**

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

## 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.  
See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid direct contact with the product.  
Avoid contact during pregnancy and while nursing.  
Smoking, drinking and consumption of food is not allowed in the work area.  
See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.

Store locked up. A sign warning of toxic materials shall be affixed the room and cupboard containing the product(s).

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

*Recommended storage material:* Always store in containers of the same material as the original container.

*Storage conditions:* Keep at temperatures between 7 and 29 °C.  
Protect from moisture.  
Protect from sunlight.  
Dry, cool and well ventilated  
Store away from heat, sparks, flames, or other sources of ignition.

*Incompatible materials:* Strong oxidizing agents  
Peroxides  
Strong bases  
Metal  
Free radical generators

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Cumene  
Long term exposure limit (OSHA Table Z-1) (mg/m<sup>3</sup>): 245  
Long term exposure limit (OSHA Table Z-1) (ppm): 50  
Long term exposure limit (ACGIH TLV) (ppm): 50

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

### 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a

regular basis.

*General recommendations:*

Smoking, drinking and consumption of food is not allowed in the work area.

*Exposure scenarios:*

There are no exposure scenarios implemented for this product.

*Exposure limits:*

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

*Appropriate technical measures:*

Do not recirculate outlet air that contain the substances. The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Ensure that eyewash stations and safety showers are located within easy reach. Apply standard precautions during use of the product. Avoid inhalation of vapours.

*Hygiene measures:*

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

*Measures to avoid environmental exposure:*

Keep damming materials near the workplace. If possible, collect spillage during work.

**Individual protection measures, such as personal protective equipment**


*Generally:*

Use only protective equipment with a recognized certification mark, e.g. the UL mark.

*Respiratory Equipment:*

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.


*Skin protection:*

Recommended	Type/Category	Standards	
-	Protective Clothing		

*Hand protection:*

Nitrile Rubber

*Eye protection:*

Type	Standards	
Safety glasses with side shields.	EN166	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<i>Physical state:</i>	Liquid
<i>Color:</i>	Red
<i>Odor:</i>	Sharp/pungent
<i>Odor threshold (ppm):</i>	No data available
<i>pH:</i>	No data available
<i>Density (g/cm<sup>3</sup>):</i>	1.06
<i>Kinematic viscosity:</i>	No data available
<i>Particle characteristics:</i>	No data available

#### Phase changes

<i>Melting point/freezing point (°F):</i>	No data available
<i>Softening point/range (°F):</i>	Does not apply to liquids.
<i>Boiling point (°F):</i>	>300
<i>Boiling point (°C):</i>	>149
<i>Vapor pressure:</i>	< 5 mmHg
<i>Relative vapor density:</i>	No data available
<i>Decomposition temperature (°F):</i>	No data available

#### Data on fire and explosion hazards

<i>Flash point (°F):</i>	>200
<i>Flash point (°C):</i>	>93
<i>Flammability (°F):</i>	No data available
<i>Auto-ignition temperature (°F):</i>	No data available
<i>Explosion limits (% v/v):</i>	No data available

#### Solubility

<i>Solubility in water:</i>	Slightly soluble
<i>n-octanol/water coefficient (LogKow):</i>	No data available
<i>Solubility in fat (g/L):</i>	No data available

### 9.2. Other information

<i>Evaporation rate (n-butylacetate = 100):</i>	No data available
<i>Other physical and chemical parameters:</i>	No data available.
<i>Oxidizing properties:</i>	No data available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity



Highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are extremely shock- and heat-sensitive.

**10.2. Chemical stability**

The product is stable under the conditions, noted in section 7 "Handling and storage".

**10.3. Possibility of hazardous reactions, including those associated with foreseeable emergencies**

None known.

**10.4. Conditions to avoid**

Incompatible Materials

Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources.

Extremes of temperature

Sunlight

Other light sources

**10.5. Incompatible materials**

Strong oxidizing agents

Peroxides

Metal

Strong bases

Free radical initiators

**10.6. Hazardous decomposition products**

Thermal decomposition may produce corrosive vapours.

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## **SECTION 11: TOXICOLOGICAL INFORMATION**

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**11.1. Information on toxicological effects**

**Acute toxicity**

Based on available data, the classification criteria are not met.

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory sensitisation**

Based on available data, the classification criteria are not met.

**Skin sensitisation**

May cause an allergic skin reaction.

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Carcinogenicity**

May cause cancer.

**Reproductive toxicity**

May damage fertility. Suspected of damaging the unborn child.

**STOT-single exposure**

May cause respiratory irritation.

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### **Long term effects**

**Carcinogenic effects:** This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.

**Tissue-damaging effects:** This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

### **Other information**

2-ethyl-2-[[[1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate has been classified by IARC as a group 2B carcinogen.

acrylic acid has been classified by IARC as a group 3 carcinogen.

Cumene has been classified by IARC as a group 2B carcinogen.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1. Toxicity**

No data available.

### **12.2. Persistence and degradability**

Based on available data, the classification criteria are not met.

### **12.3. Bioaccumulative potential**

Based on available data, the classification criteria are not met.

### **12.4. Mobility in soil**

No data available.

### **12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### **12.6. Other adverse effects**

None known.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**

acrylic acid is listed with EPA Hazardous Waste Number: U008

Cumene hydroperoxide is listed with EPA Hazardous Waste Number: U096



Cumene is listed with EPA Hazardous Waste Number: U055

### **Specific labelling**

### **Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.

## **SECTION 14: TRANSPORT INFORMATION**

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informat ion:
DOT	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triethylene Glycol Dimethacrylate)	Transport hazard class: 9 Label: 9 Classification code: M6 	III	No	Limited quantities: 5 L Tunnel restriction code: (-) See below for additional information.
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triethylene Glycol Dimethacrylate)	Transport hazard class: 9 Label: 9 Classification code: M6 	III	No	Limited quantities: 5 L EmS: F-A S-F See below for additional information.
IATA	UN3334	AVIATION REGULATED LIQUID, N.O.S. (Triethylene Glycol Dimethacrylate)	Transport hazard class: 9 Classification code: M11	III	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

### ▼ Additional information

This product is within scope of the regulations of transport of dangerous goods. These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of DOT/IMDG/IATA provided the packaging's meet the general specifications for packaging: Part 178 (DOT) / 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA).

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DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.  
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings

in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to IMO instruments

No data available.

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.2. U.S. Federal regulations

*TSCA (the non-confidential portion):*

Triethylene Glycol Dimethacrylate is listed  
2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate is listed  
acrylic acid is listed  
Hydroxycyclohexyl phenyl ketone is listed  
Cumene hydroperoxide is listed  
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide is listed

Cumene is listed  
diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide is listed

*Clean Air Act:*

acrylic acid is regulated as a hazardous air pollutant (HAPS)  
Cumene is regulated as a hazardous air pollutant (HAPS)

*EPCRA Section 302:*

None of the components are listed

*EPCRA Section 304:*

None of the components are listed

*EPCRA section 313:*

acrylic acid is listed  
Cumene hydroperoxide is listed  
Cumene is listed

*CERCLA:*

acrylic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds  
Cumene hydroperoxide is regulated with a Reportable Quantity (RQ) of: 10 pounds  
Cumene is regulated with a Reportable Quantity (RQ) of: 5000 pounds

*Hazardous chemical inventory reporting:*

This product is subject to Tier II reporting.

#### State regulations

*California / Prop. 65:*

Cumene is known to cause: Cancer

*Massachusetts / Right To Know Act:*

—  
acrylic acid is listed  
Cumene hydroperoxide is listed  
Cumene is listed

*New Jersey / Right To Know Act:*

acrylic acid / Substance number: 0023  
acrylic acid is on the Special Health Hazard Substance List

—  
Cumene hydroperoxide / Substance number: 0543  
Cumene hydroperoxide is on the Special Health Hazard Substance List

—  
Cumene / Substance number: 0542  
Cumene is on the Special Health Hazard Substance List

*New York / Right To Know Act:*

—  
acrylic acid is listed  
acrylic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds  
acrylic acid is regulated with a Treshold Reporting Quantity (TRQ) of: 1 pounds

—  
Cumene hydroperoxide is listed  
Cumene hydroperoxide is regulated with a Reportable Quantity (RQ) of: 10 pounds  
Cumene hydroperoxide is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds

—  
Cumene is listed  
Cumene is regulated with a Reportable Quantity (RQ) of: 5000 pounds  
Cumene is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds

*Pennsylvania / Right To Know Act:*

—  
acrylic acid is listed  
acrylic acid is hazardous to the environment (E)

—  
Cumene hydroperoxide is listed  
Cumene hydroperoxide is hazardous to the environment (E)

—  
Cumene is listed  
Cumene is hazardous to the environment (E)

—

**15.4. Restrictions for application**

Restricted to professional users.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

**15.5. Demands for specific education**

No specific requirements.

**15.6. Additional information**

Not applicable.

**15.7. Chemical safety assessment**

No

**15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## **SECTION 16: OTHER INFORMATION**

### **Full text of H-phrases as mentioned in section 3**

H226, Flammable liquid and vapour.  
H242, Heating may cause a fire.  
H302, Harmful if swallowed.  
H304, May be fatal if swallowed and enters airways.  
H312, Harmful in contact with skin.  
H314, Causes severe skin burns and eye damage.  
H315, Causes skin irritation.  
H317, May cause an allergic skin reaction.  
H318, Causes serious eye damage.  
H319, Causes serious eye irritation.  
H331, Toxic if inhaled.  
H332, Harmful if inhaled.  
H335, May cause respiratory irritation.  
H336, May cause drowsiness or dizziness.  
H350, May cause cancer.  
H351, Suspected of causing cancer.  
H360Fd, May damage fertility. Suspected of damaging the unborn child.  
H373, May cause damage to organs through prolonged or repeated exposure.

### **The full text of identified uses as mentioned in section 1**

None known.

### **Abbreviations and acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists  
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CERCLA = Comprehensive Environmental Response Compensation and Liability Act  
DOT = Department of Transportation  
EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

### **Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

### **The safety data sheet is validated by**

SDS Coordinator

### **Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en