

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 Sealant

substance or mixture: 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: 6/24/2025

SDS Version: 3.0

Date of previous version: 10/30/2024 (2.0)

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 eve 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:

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.

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 Dimethacrylte | 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 ne oxide | CAS No.: 75980-60-8 | 0.1-1% | Skin Sens. 1B, H317 Repr. 1B, H360Fd | |





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

General information: 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.

Inhalation: Upon breathing difficulties or irritation of the respiratory

tract: Bring the person into fresh air and stay with him/her.

Skin contact: 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.

Eye contact: 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.

Ingestion: 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.

Burns: 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_x)

Carbon oxides (CO / CO2)

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/m³): 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.



There are no exposure scenarios implemented for this Exposure scenarios:

product.

Professional users are subjected to the legally set Exposure limits:

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.

In between use of the product and at the end of the Hygiene measures:

> 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

Use only protective equipment with a recognized Generally:

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 | | R |

Hand protection: Nitrile Rubber

Eve protection:

| Туре | Standards | |
|-----------------------------------|-----------|--|
| Safety glasses with side shields. | EN166 | |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state: Liquid



Color: Red

Odor: Sharp/pungent
Odor threshold (ppm): No data available
pH: No data available

Density (g/cm^3) : 1.06

Kinematic viscosity: No data available Particle characteristics: No data available

Phase changes

Melting point/freezing point (°F): No data available

Softening point/range (°F): Does not apply to liquids.

Boiling point (°F): >300
Boiling point (°C): >149

Vapor pressure: < 5 mmHg

Relative vapor density: No data available Decomposition temperature (°F): No data available

Data on fire and explosion hazards

Flash point (°F): >200
Flash point (°C): >93

Flammability (°F):

Auto-ignition temperature (°F):

Explosion limits (% v/v):

No data available

No data available

Solubility

Solubility in water: Slightly soluble n-octanol/water coefficient (LogKow): No data available Solubility in fat (q/L): No data available

9.2. Other information

Evaporation rate (n-butylacetate =

100):

No data available

Other physical and chemical

parameters:

No data available.

Oxidizing properties: 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

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.

SECTION 11: TOXICOLOGICAL INFORMATION

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 eve 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

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

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 / 1 | - | l4.2 JN proper shipping name | 14.3 Hazard class(es) | | Env** | Other informat ion: |
|-----|----------------|---|--|---------------------------------------|-----|-------|---------------------------|
| DOT | UN30 | | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. | Transport hazard class: 9 Label: 9 | III | | Limited quantitie |



| | 14.1 UN / ID | 14.2 UN proper shipping name | 14.3 Hazard class(es) | 14.4 PG* | 14.5 Env** | Other informat ion: |
|------|-----------------|--|--------------------------|-------------|---------------|---|
| | | (Triethylene Glycol Dimethacrylte) | Classification code: M6 | | | s: 5 L Tunnel restrictio n code: (-) See below for additiona I informati on. |
| IMDG | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triethylene Glycol Dimethacrylte) | Label: 9 | III | No | Limited quantitie s: 5 L EmS: F-A S-F See below for additiona I informati on. |
| IATA | UN3082 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triethylene Glycol Dimethacrylte) | Label: 9 | III | No | See below for additiona I informati on. |

^{*} Packing group

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).

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

^{**} Environmental hazards



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 Dimethacrylte 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

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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

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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

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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)

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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