

Section 1. Identification

GHS product identifier : CERAN MS

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Formulation additives, lubricants and greases - Industrial
General use of lubricants and greases in vehicles or machinery - Industrial
General use of lubricants and greases in vehicles or machinery - Professional
Use of lubricants and greases in open systems - Industrial
Lubricating grease
Use of lubricants and greases in open systems - Professional

Supplier's details : TotalEnergies Marketing USA, Inc.
1201 Louisiana St. Suite 1800
Houston, TX 77002
Phone: 713-483-5000
ProductSafety@totalenergies.com

Emergency telephone number (with hours of operation) :

1-866-928-0789 (For Emergencies, call CARECHEM 24/7 Domestic)
1-215-207-0061 (For Emergencies, call CARECHEM 24/7 International)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : EYE IRRITATION - Category 2A
TOXIC TO REPRODUCTION - Category 2

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : Causes serious eye irritation.
Suspected of damaging fertility or the unborn child.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up.

- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	≤10	68584-23-6
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	≤3	70024-69-0
Sulfonic acids, petroleum, calcium salts	≤3	61789-86-4
Benzenesulfonic acid, dodecyl-, calcium salt	<3	26264-06-2
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	<1	68411-46-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Additional information : Mineral oil of petroleum origin. Product containing mineral oil with less than 3% DMSO extract as measured by IP 346 The product is made from synthetic base oils

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.

- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : carbon monoxide
carbon dioxide
Silicon Dioxide
hydrogen chloride
nitrogen oxides
sulfur oxides
Hydrogen sulfide
Mercaptans

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	None.
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	None.
Sulfonic acids, petroleum, calcium salts	None.
Benzenesulfonic acid, dodecyl-, calcium salt	None.
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	ACGIH TLV (United States). TWA: 3 mg/m ³ Form: Respirable dust TWA: 10 mg/m ³ Form: Total dust

Biological exposure indices

No exposure indices known.

Advisory OEL : Mineral oil mist: USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Hydrocarbon-proof gloves
Fluorinated rubber
nitrile rubber
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

- Body protection** : Wear work clothing with long sleeves.
- Respiratory protection** : Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. In case of insufficient ventilation, wear suitable respiratory equipment. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature (20°C / 68°F) and pressure (1013 hPa) unless otherwise indicated

Appearance

- Physical state** : Liquid. [grease]
- Color** : Dark grey.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : >300°C (>572°F) [ISO 3016]
- Boiling point** : >300°C (>572°F) [ISO 3405]
- Flash point** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not applicable.
- Vapor density** : Not available.
- Relative density** : 0.9 [ISO 12185]
- Density** : 0.9 g/cm³ [20°C] [ISO 12185]
- Solubility(ies)** :

Media	Result
water	Not soluble

- Miscible with water** : No.

- Partition coefficient: n-octanol/water** : >3.5

- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : >300°C (>572°F)
- Viscosity** : Kinematic (40°C (104°F)): Not applicable.
- Flow time (ISO 2431)** : Not available.

Particle characteristics

- Median particle size** : Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: carbon monoxide carbon dioxide Silicon Dioxide hydrogen chloride nitrogen oxides sulfur oxides Hydrogen sulfide Mercaptans

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/substance	Result	Species	Dose	Exposure	Test
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	LC50 Inhalation Dusts and mists	Rat - Male, Female	>1.9 mg/l	4 hours	EPA OPP 81-3 Acute Inhalation Toxicity OECD
	LD50 Dermal	Rabbit - Male, Female	>4000 mg/kg	-	OECD 401
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-	Read across EPA OPP 81-3 Acute Inhalation Toxicity Read across OECD 402
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	LC50 Inhalation Dusts and mists	Rat - Male, Female	>1.9 mg/l	4 hours	OECD 401
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	-	OECD 401
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-	OECD 401
Sulfonic acids, petroleum, calcium salts	LC50 Inhalation Dusts and mists	Rat - Male	>1.9 mg/l	4 hours	EPA OPP 81-3 Acute Inhalation Toxicity -
	LD50 Dermal	Rabbit - Male, Female	>4000 mg/kg	-	-
	LD50 Oral	Rat - Male	>16000 mg/kg	-	Section 772 . 112-21 CFR 40
Benzenesulfonic acid,	LD50 Dermal	Rat - Male,	>2000 mg/kg	-	OECD 402



TotalEnergies

CERAN MS

SDS # : 33390

C10-13-alkyl derivs., Ca Salt		Female			Read across
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	LD50 Oral	Rat - Female	4445 mg/kg	-	-
	LD50 Oral	Rat	>2500 mg/kg	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

Product/substance	Result	Species	Score	Exposure	Test
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Eyes - Cornea opacity	Rabbit	0	-	EPA
	Skin - Edema	Rabbit	0.3	4 hours	EPA OPPTS 870.2500
	Skin - Primary dermal irritation index (PDII)	Rabbit	0.5	4 hours	Acute Dermal Irritation OECD
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	Eyes - Irritant	Rabbit	1	-	OECD 405
	Skin - Erythema/Eschar	Rabbit	2.7	4 hours	OECD 404

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

Eyes : Based on available data, the classification criteria are met.

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

Sensitization

Product/substance	Route of exposure	Species	Result
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	skin	Human	Sensitizing
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	skin	Mouse	Sensitizing
Sulfonic acids, petroleum, calcium salts	skin	Guinea pig	Sensitizing
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	skin	Guinea pig	Not sensitizing

Skin : Based on available data, the classification criteria are not met. The supplier of one or more of the components contained within this formulation has indicated that he has data on the components and/or similar mixtures, which confirms that at the concentration used, classification is not required. Contains sensitizer. May produce an allergic reaction.

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

Mutagenicity

Product/substance	Test	Experiment	Result
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	Negative

	-	Cell: Somatic Experiment: In vivo Subject: Mammalian-Animal	Negative
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Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/substance	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Negative	Negative	Negative	Rat - Male, Female	Oral	-

Conclusion/Summary : Based on available data, the classification criteria are met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

Conclusion/Summary : Based on available data, the classification criteria are not met.

Aspiration hazard

Conclusion/Summary : Based on available data, the classification criteria are not met.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/substance	Result	Species	Dose	Exposure
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Sub-acute NOAEL Dermal	Rat - Male, Female	>1000 mg/kg	-
	Sub-acute NOAEL Oral	Rat - Male, Female	500 mg/kg	-
	Sub-acute NOAEL Inhalation Vapor	Rat - Male, Female	50 mg/m ³	28 days

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
CERAN MS	103734.4	N/A	N/A	N/A	N/A
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	N/A	2500	N/A	N/A	N/A
Sulfonic acids, petroleum, calcium salts	N/A	2500	N/A	N/A	N/A
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	4445	2500	N/A	N/A	N/A
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	2500	N/A	N/A	N/A	N/A

Other information :
Not available.

Section 12. Ecological information

Toxicity

Product/substance	Result	Species	Exposure	Test
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Acute EC50 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	Acute EC50 >1000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 >1000 mg/l	Fish - <i>Cyprinodon variegatus</i>	96 hours	OECD 203
	Chronic EC10 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	Acute EC50 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	Acute EC50 >1000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 >1000 mg/l	Fish - <i>Cyprinodon variegatus</i>	96 hours	OECD 203
	Chronic EC10 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
Sulfonic acids, petroleum, calcium salts	Acute EC50 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	Acute EC50 >1000 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 >1000 mg/l	Fish - <i>Cyprinodon variegatus</i>	96 hours	OECD 203
	Chronic EC10 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	Acute EC50 29 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	96 hours	STDMETH, ASTM and USEPA 201
	Acute EC50 2.9 mg/l	Crustaceans - <i>Daphnia magna</i>	48 hours	OECD 202
	Acute LC50 1.67 mg/l	Fish - <i>Lepomis macrochirus</i>	96 hours	STDMETH, ASTM and USEPA
	Chronic NOEC 0.5 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	96 hours	STDMETH, ASTM and USEPA 201
	Chronic NOEC 0.379 mg/l	Daphnia	48 hours	OECD 211

Persistence and degradability

Product/substance	Test	Result	Dose	Inoculum
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	OECD 301D	0 % - Not readily - 28 days	-	Activated sludge
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	OECD 301D	0 % - Not readily - 28 days	-	Activated sludge
Sulfonic acids, petroleum, calcium salts	OECD 301D	0 % - Not readily - 28 days	-	Activated sludge
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	OECD 301B	>90 % - Readily - 28 days	-	Activated sludge

Product/substance	Aquatic half-life	Photolysis	Biodegradability
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	-	-	Not readily
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	-	-	Not readily
Sulfonic acids, petroleum, calcium salts	-	-	Not readily
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	-	-	Readily
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	-	-	Not readily

Bioaccumulative potential

Product/substance	LogK _{ow}	BCF	Potential
CERAN MS	>3.5	-	Low
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	22	-	High
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	2.89	-	Low
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	5.1	1730	High

Mobility in soil

Soil/water partition coefficient (K_{oc})

: Not available.

Mobility in soil

: Given its physical and chemical characteristics, the product has no soil mobility. The product is insoluble and floats on water. Loss by evaporation is limited.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	ICAO/IATA
UN/ID No	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

Additional information

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR:** Siloxanes and Silicones, di-Me; diphenylamine
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : EYE IRRITATION - Category 2A
TOXIC TO REPRODUCTION - Category 2

Composition/information on ingredients

Name	%	Classification
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	≤10	SKIN SENSITIZATION - Category 1B
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	≤3	SKIN SENSITIZATION - Category 1B
Sulfonic acids, petroleum, calcium salts	≤3	SKIN SENSITIZATION - Category 1B
Benzenesulfonic acid, C10-13-alkyl derivs., Ca Salt	<3	SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	<1	TOXIC TO REPRODUCTION - Category 2

State regulations

Massachusetts	: The following components are listed: OIL MIST, MINERAL; OIL MIST, MINERAL; OIL MIST, MINERAL; MOLYBDENUM DISULFIDE
New York	: None of the components are listed.
New Jersey	: None of the components are listed.
Pennsylvania	: None of the components are listed.
California Prop. 65	

To the best of our knowledge, this product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia inventory (AIC)	: All components are listed or exempted.
Canada inventory (DSL/NDL)	: All components are listed or exempted.
China inventory (IECSC)	: All components are listed or exempted.
Europe inventory (EC)	: All components are listed or exempted.
Japan inventory	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : Not determined.
New Zealand Inventory of Chemicals (NZIoC)	: All components are listed or exempted.
Philippines inventory (PICCS)	: All components are listed or exempted.
Korea inventory (KECI)	: All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	: All components are listed or exempted.

Thailand inventory	: Not determined.
Turkey inventory	: Not determined.
United States inventory (TSCA 8b)	: All components are listed or exempted.
Vietnam inventory	: Not determined.

The information stated in this section relates solely to the conformity of the chemical product with the countries Inventories. The information used to confirm the inventory status of this product may be based on additional data to the chemical composition shown in Section 3. Other regulations may apply for importation or marketing authorizations.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION - Category 2	Calculation method Expert judgment

History

Date of revision	: 2023/11/23
previous revision date	: 2023/10/12
Version	: 1.04

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
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)
N/A = Not available
SGG = Segregation Group
UN = United Nations

References

: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.