

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : CERAN MS
Product code : 33390
Product description : Not available.
Product type : Liquid.
Other means of identification : Not available.

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

Identified uses

Lubricating grease

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

TotalEnergies Lubrifiants
562 Avenue du Parc de L'île
92029 Nanterre Cedex FRANCE
Tél: +33 (0)1 41 35 40 00
Fax: +33 (0)1 41 35 84 71
rm.msds-lubs@totalenergies.com

TotalEnergies Marketing UK Limited
10 Upper Bank Street (19th floor)
Canary Wharf,
London E14 5BF
UNITED KINGDOM
Tel: +44 (0)20 7339 8000
Fax: +44 (0)20 7339 8033
rm.gb-msds@totalenergies.com

H.S.E

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : National Poisons Information Service (NPIS): 111

Supplier

Telephone number : Emergency telephone: +44 1235 239670

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Product definition** : Mixture**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Eye Irrit. 2, H319

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown ecotoxicity : Contains 5.9% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements**Hazard pictograms** :**Signal word** : Warning**Hazard statements** : H319 - Causes serious eye irritation.**Precautionary statements****Prevention** : P280 - Wear eye or face protection.**Response** : P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice or attention.**Storage** : Not applicable.**Disposal** : Not applicable.**Supplemental label elements** : Contains Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts, Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts and Sulfonic acids, petroleum, calcium salts. May produce an allergic reaction.**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.**2.3 Other hazards****Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII**This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration $\geq 0,1$ %.

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	REACH #: 01-2119492627-25 EC: 271-529-4 CAS: 68584-23-6	≤10	Skin Sens. 1B, H317	[1]
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	REACH #: 01-2119492616-28 EC: 274-263-7 CAS: 70024-69-0	≤3	Skin Sens. 1B, H317	[1]
Sulfonic acids, petroleum, calcium salts	REACH #: 01-2119488992-18 EC: 263-093-9 CAS: 61789-86-4	≤3	Skin Sens. 1, H317	[1]
molybdenum disulphide	EC: 215-263-9 CAS: 1317-33-5	≤3	Not classified.	[2]
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	REACH #: 01-2119560592-37 EC: 932-231-6 CAS: 1335202-81-7	<3	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3, H412	[1]
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	REACH #: 01-2119491299-23 EC: 270-128-1 CAS: 68411-46-1	≤1	Repr. 2, H361f	[1]
diphenylamine	EC: 204-539-4 CAS: 122-39-4 Index: 612-026-00-5	<0.1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT RE 2, H373 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) See Section 16 for the full text of the H statements declared above.	[1] [2]

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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



SECTION 4: First aid measures

4.1 Description of 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 adverse health effects persist or are severe. 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 recognised skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. 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 if adverse health effects persist or are severe. 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.
- 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.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Carbon monoxide
Carbon dioxide
Silicon Dioxide
Hydrogen chloride
Nitrogen oxides
Sulfur oxides
Hydrogen sulfide
Mercaptans

5.3 Advice for firefighters

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**6.1 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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised 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".

6.2 Environmental precautions

: Avoid dispersal of spilt 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).

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.



SECTION 6: Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Approach the 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.

7.2 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. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : See exposure scenarios

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits



SECTION 8: Exposure controls/personal protection

Product/substance	Exposure limit values
molybdenum disulphide	EH40/2005 WELs (United Kingdom (UK), 1/2020). [molybdenum insoluble compounds as Mo] STEL: 20 mg/m ³ , (as Mo) 15 minutes. TWA: 10 mg/m ³ , (as Mo) 8 hours.
diphenylamine	EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 20 mg/m ³ 15 minutes. TWA: 10 mg/m ³ 8 hours.

Reportable hazardous constituent(s) contained in UVCB- and/or multi-constituent substance(s) complying with the classification criteria and/or with an exposure limit (OEL)

No exposure limit value known.

Biological Limit Values (BLV)

No exposure indices known.

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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)

DNELs/DMELs

Product/substance	Type	Exposure	Value	Population	Effects
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	DNEL	Long term Dermal	0.513 mg/cm ²	General population	Local
	DNEL	Long term Oral	0.8333 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.03 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	1.667 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2.9 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	3.33 mg/kg bw/day	Workers	Systemic
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	DNEL	Long term Inhalation	11.75 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0.513 mg/cm ²	General population	Local
	DNEL	Long term Oral	0.8333 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.03 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	1.667 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2.9 mg/m ³	General population	Systemic
Sulfonic acids, petroleum, calcium salts	DNEL	Long term Dermal	3.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	11.75 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	1.03 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	0.513 mg/cm ²	General	Local



SECTION 8: Exposure controls/personal protection

Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	DNEL	Long term Dermal	cm ² 0.513 mg/cm ²	population	Local
	DNEL	Long term Oral	0.8333 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.03 mg/cm ²	General population	Local
	DNEL	Long term Dermal	1.667 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.9 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	3.33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	11.75 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	1.7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	85 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	89 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1.7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	85 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	89 mg/kg bw/day	General population	Systemic
	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	DNEL	Long term Oral	0.04 mg/kg bw/day	General population
DNEL		Long term Dermal	0.04 mg/kg bw/day	General population	Systemic
DNEL		Long term Dermal	0.08 mg/kg bw/day	Workers	Systemic
DNEL		Long term Inhalation	0.14 mg/m ³	General population	Systemic
DNEL		Long term Inhalation	0.6 mg/m ³	Workers	Systemic

PNECs

Product/substance	Compartment Detail	Value	Method Detail
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	Fresh water	1 mg/l	-
	Marine water	1 mg/l	-
	Fresh water sediment	226000000 mg/kg dwt	-
	Marine water sediment	226000000 mg/kg dwt	-
	Soil	868700000 mg/kg dwt	-
	Sewage Treatment Plant	100 mg/l	-
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	Secondary Poisoning	16.667 mg/kg dwt	-
	Fresh water	1 mg/l	-
	Marine water	1 mg/l	-
	Fresh water sediment	226000000 mg/	-

**SECTION 8: Exposure controls/personal protection**

Sulfonic acids, petroleum, calcium salts	Marine water sediment	kg dwt 226000000 mg/	-
	Soil	kg dwt 271000000 mg/	-
	Sewage Treatment Plant	kg dwt 100 mg/l	-
	Secondary Poisoning	16.667 mg/kg dwt	-
	Fresh water	1 mg/l	-
	Marine water	1 mg/l	-
	Fresh water sediment	226000000 mg/	-
	Marine water sediment	kg dwt 226000000 mg/	-
	Soil	kg dwt 271000000 mg/	-
	Soil	kg wwt 1000 mg/l	-
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	Fresh water	23 µg/l	-
	Marine water	2.3 µg/l	-
	Sewage Treatment Plant	3 mg/l	-
	Fresh water sediment	174 µg/kg dwt	-
	Marine water sediment	17.4 µg/kg dwt	-
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Soil	620 µg/kg dwt	-
	Fresh water	33.8 µg/l	-
	Marine water	3.38 µg/l	-
	Fresh water sediment	446 µg/kg dwt	-
	Marine water sediment	44.6 µg/kg dwt	-
Soil	1.76 mg/kg dwt	-	

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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 glasses with side-shields, EN 166.

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.

**SECTION 8: Exposure controls/personal protection**

Hydrocarbon-proof gloves

nitrile rubber

Fluorinated 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.

In case of prolonged contact with the product, it is recommended to wear gloves complying with ISO 21420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency

- Body protection** : Wear work clothing with long sleeves.
- Respiratory protection** : None under normal use conditions. If these are not sufficient to maintain exposure below the OEL, suitable respiratory protection must be worn (Type A/P1).
- 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.

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

9.1 Information on basic physical and chemical properties**Appearance**

- Physical state** : Liquid. [grease]
- Colour** : Dark grey.
- Odour** : Characteristic.
- Melting point/freezing point** : >300°C [ISO 3016]
- Initial boiling point and boiling range** : 300°C (>572°F) [ISO 3405]
- Flammability (solid, gas)** : Not applicable.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : >300°C
- pH** : Not applicable. Product is non-soluble (in water).
- Viscosity** : Kinematic (40°C): Not applicable.
- Solubility(ies)** :

Media	Result
water	Not soluble

- Miscible with water** : No.
- Partition coefficient: n-octanol/ water** : >3.5
- Vapour pressure** : Not applicable.

**SECTION 9: Physical and chemical properties**

Relative density	: 0.9 [ISO 12185]
Density	: 0.9 g/cm ³ [20°C (68°F)] [ISO 12185]
Vapour density	: Not available.
Particle characteristics	
Median particle size	: Not applicable.

9.2 Other information

No other relevant physical and chemical parameters for the safe use of the product

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****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	-	OECD 401
Benzenesulfonic acid, mono-C16-24-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 Read across OECD 402
	LD50 Dermal	Rabbit - Male, Female	>5000 mg/kg	-	OECD 402
	LD50 Oral	Rat - Male,	>5000 mg/kg	-	OECD 401



SECTION 11: Toxicological information

Sulfonic acids, petroleum, calcium salts	LC50 Inhalation Dusts and mists	Female 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, C10-13-alkyl derivs., calcium salt	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-	OECD 402 Read across
	LD50 Oral	Rat - Female	4445 mg/kg	-	-
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene diphenylamine	LD50 Oral	Rat	>2500 mg/kg	-	-
	LC50 Inhalation Dusts and mists	Rat	0.501 mg/l	4 hours	-
	LC50 Inhalation Vapour	Rat	3 mg/l	4 hours	-
	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
	LD50 Dermal	Rat	300 mg/kg	-	-
	LD50 Oral	Rat	100 mg/kg	-	-

Acute toxicity estimates

Product/substance	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	4445	N/A	N/A	N/A	N/A
diphenylamine	100	300	N/A	3	0.501

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 - Oedema	Rabbit	0.3	4 hours	EPA OPPTS 870.2500 Acute Dermal Irritation
	Skin - Primary dermal irritation index (PDII)	Rabbit	0.5	4 hours	OECD
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	Eyes - Irritant	Rabbit	1	-	OECD 405
	Skin - Erythema/Eschar	Rabbit	2.7	4 hours	OECD 404

Conclusion/Summary

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.

Sensitisation

**SECTION 11: Toxicological information**

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

Conclusion/Summary**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 Cell: Somatic	Negative
	-	Experiment: In vivo Subject: Mammalian-Animal	Negative

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	Developmental 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 not met.

Teratogenicity

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

Specific target organ toxicity (single exposure)

Not available.

**SECTION 11: Toxicological information****Conclusion/Summary** : Based on available data, the classification criteria are not met.**Specific target organ toxicity (repeated exposure)**

Product/substance	Category	Route of exposure	Target organs
diphenylamine	Category 2	-	-

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

Not available.

Conclusion/Summary : Based on available data, the classification criteria are not met.**Information on 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** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : No specific data.

Delayed and immediate effects as well as 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

**SECTION 11: Toxicological information**

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 Vapour	Rat - Male, Female	50 mg/m ³	28 days

Conclusion/Summary	: Not available.
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	: No known significant effects or critical hazards.

11.2 Information on other hazards**11.2.1 Endocrine disrupting properties**

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

11.2.2 Other information

Not available.

SECTION 12: Ecological information**12.1 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</i>	48 hours	OECD 202



SECTION 12: Ecological information

Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	Acute LC50 >1000 mg/l	<i>magna</i> Fish - <i>Cyprinodon variegatus</i>	96 hours	OECD 203
	Chronic EC10 >1000 mg/l	Algae - <i>Pseudokirchneriella subcapitata</i>	72 hours	OECD 201
	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
diphenylamine	Chronic NOEC 0.379 mg/l	Daphnia	48 hours	OECD 211
	Acute EC50 0.31 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours	-
	Acute LC50 2.2 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours	US EPA

Conclusion/Summary : Not available.

12.2 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., calcium salt	OECD 301B	>90 % - Readily - 28 days	-	Activated sludge

Conclusion/Summary : Not available.

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
molybdenum disulphide	-	-	Readily
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	-	-	Readily
Benzenamine, N-phenyl-, reaction products with	-	-	Not readily

**SECTION 12: Ecological information**

2,4,4-trimethylpentene			
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12.3 Bioaccumulative potential

Product/substance	LogP _{ow}	BCF	Potential
CERAN MS	>3.5	-	Low
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	22	-	High
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	2.89	-	Low
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	5.1	1730	High
diphenylamine	3.5	151.36	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : 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

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB in a concentration $\geq 0,1$ %.

12.6 Endocrine disrupting properties

This product does not contain any substance present at a concentration equal to or greater than 0.1% by mass, included in the list drawn up in accordance with article 59, paragraph 1 of the REACH Regulation, due to its endocrine disrupting properties, or a substance known to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation 2018/605.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

**SECTION 13: Disposal considerations**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 12 01 12*

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	ICAO/IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 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.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****UK (GB)/REACH****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

Substances of very high concern

None of the components are listed.

Ozone depleting substances

**SECTION 15: Regulatory information**

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**Seveso Directive**

This product is not controlled under the Seveso Directive.

EU regulations

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

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 (AIIC)** : All components are listed or exempted.
Canada inventory : All components are listed or exempted.
China inventory (IECSC) : All components are listed or exempted.
Europe inventory : 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.
: All components are listed or exempted.

**SECTION 15: Regulatory information****Korea inventory (KECI)****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.

15.2 Chemical safety assessment : See exposure scenarios

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 DMEL = Derived Minimal Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 vPvB = Very Persistent and Very Bioaccumulative
 PNEC = Predicted No Effect Concentration
 LC50 = Median lethal concentration
 LD50 = Median lethal dose
 OEL = Occupational Exposure Limit
 VOC = Volatile Organic Compound
 UVCB Substance of unknown or Variable composition, Complex reaction products or Biological material
 NOEC No Observed Effect Concentration
 QSAR = Quantitative Structure–Activity Relationship

Procedure used to derive the classification

Classification	Justification
Eye Irrit. 2, H319	Calculation method

Full text of abbreviated H statements

<input checked="" type="checkbox"/> H301	Toxic if swallowed.
H311	Toxic in contact with skin.
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.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.



SECTION 16: Other information

H412 Harmful to aquatic life with long lasting effects.

Full text of classifications

Acute Tox. 3	ACUTE TOXICITY - Category 3
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

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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.