SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Burning produces obnoxious and toxic fumes. Thermal decomposition can lead to release of irritating gases and vapors. May form explosive dust-air mixture.
Further information	:	Standard procedure for chemical fires.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Non-sparking tools should be used. Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	:	Neutralize with chalk, alkali solution or ammonia. Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that

dusts do not accumulate on surfaces.
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.
Keep away from heat and sources of ignition.

Avoid contact with skin and eyes.
For personal protection see section 8.
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
sulphuric acid	7664-93-9	TWA (Thoracic fraction)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	OSHA Z-1
		TWA	1 mg/m3	OSHA P0
		TWA	1 mg/m3	NIOSH REL

Exposure controls

Engineering measures : It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation,

especially in confined areas.

Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m3 - total dust, 5 mg/m3 - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m3 - respirable particles, 10 mg/m3 - inhalable particles.

Adequate general ventilation is recommended when handling to control airborne levels.
Use with local exhaust ventilation.
Use mechanical ventilation for general area control.

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection

Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves Before removing gloves clean them with soap and water.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Environmental exposure controls

Water : Do not let product enter drains.
Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid

Color : pale, yellow

Odor	:	slight
Odor Threshold	:	No data available
pH	:	2 Concentration:1 %
Melting point/range	:	108 - 110 °C
Boiling point/boiling range	:	No data available
Flash point	:	> 101 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	1.262 (25 °C)
Density	:	No data available
Solubility(ies)		
Water solubility	:	250 g/l (20 °C)
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

Surface tension	:	No data available
Oxidizing potential	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No decomposition if used as directed.
Conditions to avoid	:	No data available
Incompatible materials	:	Strong oxidizing agents, alkalines
Hazardous decomposition products	:	Sulfur oxides Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Skin contact
Ingestion
Eye contact

Acute toxicity

Product :

Acute oral toxicity	:	Acute toxicity estimate: 3,555 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Remarks: Not classified due to lack of data.
Acute dermal toxicity	:	Remarks: Not classified due to lack of data.

Components:

sulisobenzone :

Acute oral toxicity	:	LD50 (Rat): 3,530 mg/kg

oxybenzone :

Acute oral toxicity	:	LD50 (Rat, female): > 2,000 mg/kg GLP: yes Assessment: The substance or mixture has no acute oral toxicity
Acute dermal toxicity	:	LD50 (Rabbit):> 16,000 mg/kg

Skin corrosion/irritation

Product :

Remarks: Extremely corrosive and destructive to tissue.

Components:

sulisobenzone :

Species: Rabbit
Assessment: Irritating to skin.
Result: Skin irritation

sulphuric acid :

Result: Causes severe burns.

oxybenzone :

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product :

Remarks: May cause irreversible eye damage.

Components:

sulisobenzone :

Species: Rabbit
Result: Eye irritation
Assessment: Irritating to eyes.

oxybenzone :

Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitization

Product :

Remarks: Causes sensitization.

Components:

sulisobenzone :

Assessment: May cause sensitization by skin contact.

oxybenzone :

Test Type: Maximization Test
Species: Guinea pig
Assessment: Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Product :

Genotoxicity in vitro	:	Remarks: No data available
Genotoxicity in vivo	:	Remarks: No data available
Germ cell mutagenicity - Assessment	:	Not classified due to lack of data.

Components:

oxybenzone :

Genotoxicity in vitro	:	Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative GLP: yes
Genotoxicity in vivo	:	Test Type: in vivo assay Species: Rat Cell type: Bone marrow Application Route: Oral Result: negative
Germ cell mutagenicity - Assessment	:	Animal testing did not show any mutagenic effects.

Carcinogenicity

Product :

Remarks: This information is not available.

Carcinogenicity - Assessment	:	Not classified due to lack of data.

Reproductive toxicity

Product :

Effects on fertility	:	Remarks: No data available
Effects on fetal development	:	Remarks: No data available
Reproductive toxicity - Assessment	:	Not classified due to lack of data.

Components:

oxybenzone :

Reproductive toxicity - Assessment	:	No toxicity to reproduction No effects on or via lactation

STOT-single exposure

Product :

Assessment:Not classified due to lack of data.

STOT-repeated exposure

Product :

Assessment:Not classified due to lack of data.

Components:

oxybenzone :

Routes of exposure:Oral
Assessment:The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product :

Remarks: No data available

Aspiration toxicity

Product :

No aspiration toxicity classification

Further information

Product :

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50: > 220 mg/lExposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data is available on the product itself.

Toxicity to microorganisms	:	(Bacteria): > 200 mg/l Exposure time: 16 h

Components:

sulisobenzone :

Toxicity to fish	:	LC50 (Fish): > 5,000 mg/l Exposure time: 96 h

oxybenzone :

Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available

Components:

oxybenzone :

Biodegradability	:	Result: Readily biodegradable.

Bioaccumulative potential

Components:

sulisobenzone :

Bioaccumulation	:	Bioconcentration factor (BCF): 3.2
Partition coefficient: n-octanol/water	:	log Pow: 0.37 (25 °C) Method: estimated

Mobility in soil

Product:

Mobility	:	Remarks: No data available

Other adverse effects

Product:

Results of PBT and vPvB assessment	:	This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological	:	There is no data available for this product.

information

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Chronic Health Hazard Acute Health Hazard
SARA 302	:	The following components are subject to reporting levels established by SARA Title III, Section 302:

sulphuric acid	7664-93-9	0.4 %

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

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

sulphuric acid	7664-93-9	0.4 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

sulphuric acid	7664-93-9	0.4 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

sulphuric acid	7664-93-9

Pennsylvania Right To Know

sulisobenzone	4065-45-6
sulphuric acid	7664-93-9

New Jersey Right To Know

sulisobenzone	4065-45-6
sulphuric acid	7664-93-9

California Prop 65 : This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC	:	On the inventory, or in compliance with the inventory
ISHL	:	On the inventory, or in compliance with the inventory
CH INV	:	The mixture contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory
TCSI	:	Not in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations

Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

NFPA: + 0 , 6 Š , 9

Flammability

1

3 Health 0

Instability

Special hazard.

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 2020/11/10

The information and recommendations contained in this safety data sheet are, to the best of SI Group's knowledge, belief and experience, accurate and reliable as of the date of its publication and describe the product only with regard to safety requirements. It is the user's responsibility to confirm that it is using the most current available version of this safety data sheet. The information and recommendations herein are offered for the user's consideration and examination. Identified uses in this safety data sheet do neither represent an agreement on the quality of the Product nor a designated use. For the avoidance of doubt, nothing herein shall be construed as relieving the user of its responsibility to ensure that the product is suitable for the intended use and that any proprietary rights, existing laws and legislation are observed. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING THE PRODUCT DESCRIPTIONS, DATA OR INFORMATIN HEREIN. This safety data sheet is neither a Certificate of Analysis (CoA) nor a technical data sheet and shall not be mistaken for a description of the product's specifications. If user repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the packaging. Appropriate warnings and safe-handling procedures should be provided to handlers and further users of the product. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.

US / Z8

Carechem24 International Worldwide Coverage

Emergency Phone Numbers:

Europe:	All European Countries	+44 (0) 1235 239 670
Asia Pacific:	East / South East Asia	Regional Number : +65 3158 1074
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	:Malaysia	+60 3 6207 4347
	Thailand	001800 1 2066 6751
	Korea	+65 3158 1285
	Vietnam	+65 3158 1255
	India	+65 3158 1198
	Pakistan	+65 3158 1329
	Philippines	+65 31581203
	Sri Lanka	+65 3158 1195
	Bangladesh	+65 3158 1200
Middle East / Africa:	Arabic speaking countries	+44 (0) 1235 239 671
	All other countries	+44 (0) 1235 239 670
America	United States / Canada	001866 928 0789
Latin America:	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
	Mexico	+52 555 004 8763