LMNÆ
LUMINAE

TWILIGHT
DETOXIFYING CHARCOAL LIGHTENER

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1 Identification of the substance/preparation

Product Name: TWILIGHT DETOXIFYING CHARCOAL LIGHTENER

1.2 Identification of the substance/preparation

Product type and use: Black detoxifying hair bleaching powder

Uses advised against: None in particular

1.3 Details of the supplier of the Information Data Sheet

Name: LUMINAE HAIRCARE

Headquarters Address: 8750 Westpark Dr.

District and Country: Houston, Texas 77063 USA

Telephone: +1 (713) 532-1111

E-mail: info@luminaehaircare.com

1.4 Emergency telephone number

Jeremiah R. Sammons - +1 (713) 696-9244

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Oxidising solid, category 3	H272	May intensify fire; oxidizer.
Acute toxicity, category 4	H302	Harmful if swallowed.
Acute toxicity, category 4	H332	Harmful if inhaled.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Respiratory sensitization, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.

2.2 Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H272 May intensify fire; oxidizer.

H302+H332 Harmful if swallowed or if inhaled.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust / fume / gas / mist / vapours / spray.

P220 Keep away from clothing and other combustible materials.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P280 Wear protective gloves/ protective clothing / eye protection / face protection.

P310 Immediately call a POISON CENTER / doctor / . . .

Contains: Sodium disilicate
Dipotassium peroxodisulphate
Diammonium peroxodisulphate
Sodium metasilicate

2.3 Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%. The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.
Product may reacts exothermically with water or moisture, giving spontaneous combustion.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Information not relevant

3.2 Mixtures

Contains:

INCI	Identification Numbers	Conc.%	Classification (EC) 1272/2008 (CLP)
Diammonium Peroxodisulphate	CAS 7727-54-0 EC 231-786-5 INDEX 016-060-00-6 REACH Reg. 01-2119495973-19	25 ≤ x < 50	Ox. Sol. 3 H272, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317 STA Oral: 500 mg/kg
Sodium Disilicate	CAS 1344-09-8 EC 215-687-4 REACH Reg. 01-2119448725-31	25 ≤ x < 50	Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335
Dipotassium Peroxodisulphate	CAS 7727-21-1 EC 231-781-8 INDEX 016-061-00-1 REACH Reg. 01-2119495676-19	10 ≤ x < 25	Ox. Sol. 3 H272, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317
Sodium Stearate	CAS 822-16-2 EC 212-490-5 REACH Reg. EXEMPTED - Annex V (7, 8, 9) of REACH regulation	1 ≤ x < 5	
Calcium Carbonate	CAS 471-34-1 EC 207-439-9 REACH Reg. 01-2119486795-18	1 ≤ x < 5	
Sodium Metasilicate	CAS 6834-92-0 EC 229-912-9 INDEX 014-010-00-8 REACH Reg. 01-2119449811-37	1 ≤ x < 5	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335
Tetrasodium Ethylenediaminetetra-acetate	CAS 64-02-8 EC 200-573-9 INDEX 607-428-00-2 REACH Reg. 01-2119486762-27	0 ≤ x < 1	Acute Tox. 4 H302, Acute Tox. 4 H332, STOT RE 2 H373, Eye Dam. 1 H318 LD50 Oral: 1780 mg/l/4h, STA Inhalation mists/powders: 1,5 mg/l
White Mineral Oil	CAS 8042-47-5 EC 232-455-8 REACH Reg. 01-2119487078-27	0 ≤ x < 1	Asp. Tox. 1 H304
Sulfuric Acid, Mono-C12-14-alkyl Esters, Sodium Salts	CAS 85586-07-8 EC 287-809-4 REACH Reg. 01-2119489463-28	0 ≤ x < 1	Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 LD50 Oral: >300

The full wording of hazard (H) phrases is given in section 16 of the sheet. Sulfuric acid, mono-C12-14-alkyl esters, sodium salts
Alt. CAS: 151-21-3

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures:

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorized by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2 Most important symptoms and effects, both acute and delayed:

Specific information on symptoms and effects caused by the product are unknown.

4.3 Indication of any immediate medical attention and special treatment needed:

Information not available

SECTION 5. FIREFIGHTING MEASURES

5.1 Suitable extinguishing media:

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

5.2 Unsuitable extinguishing equipment:

None in particular.

5.3 Special hazards arising from the substance or mixture:

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE. Do not breathe combustion products.

5.4 Advice for firefighters - General Information

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

5.5 Advice for firefighters - Special protective equipment for firefighters:

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

If there are no contraindications, spray powder with water to prevent the formation of dust.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2 Environmental precautions:

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and material for containment and cleaning up:

Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.
Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to other sections:

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2 Conditions for safe storage, including any incompatibilities:

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.
Provide adequate ventilation in the workplace, which must be equipped with exhaust/dedusting systems. Storage must take place in closed places, away from heat sources (T <30 ° C), sunlight and moisture.
Avoid contact with moist organic materials, such as paper towels, wood, clothing.
Do not contaminate with reducing agents such as lotions and permanent agents, do not store after adding substances such as developers and bleching lotions.
Do not discharge leavings into garbage, the product may give spontaneous combustion.

7.3 Specific end use(s):

Professional use.

SECTION 8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters – Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021 ACGIH 2021
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	TLV-ACGIH	ACGIH 2021

Diammonium Peroxodisulphate

Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	0,1			
TGG	NLD	1			
TVL-ACGIH		0,1			

Predicted no-effect concentration - PNEC

Normal value in fresh water:	0,076	mg/l
Normal value in marine water:	0,011	mg/l
Normal value for fresh water sediment:	0,06	mg/kg
Normal value for marine water sediment:	0,009	mg/kg
Normal value for water, intermittent release:	0,76	mg/l
Normal value of STP microorganisms:	3,6	mg/l
Normal value for the terrestrial compartment:	0,013	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on Consumers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral	VND	30 mg/kg bw/d	VND	9,1 mg/kg bw/d
Inhalation	295 mg/m3	295 mg/m3	1,03 mg/m3	1,03 mg/m3
Skin	1,124 mg/cm2	200 mg/kg bw/d	0,051 mg/kg bw/d	9,1 mg/kg bw/d
	Effects on Workers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				
Inhalation	590 mg/m3	590 mg/m3	2,06 mg/m3	2,06 mg/m3
Skin	2,248 mg/kg bw/d	400 mg/kg bw/d	0,102 mg/cm2	18,2 mg/kg bw/d

Tetrasodium Ethylenediaminetetraacetate

Predicted no-effect concentration - PNEC

Normal value in fresh water:	2,2	mg/l
Normal value in marine water:	0,22	mg/l
Normal value for water, intermittent release:	1,56	mg/l
Normal value of STP microorganisms:	43	mg/l
Normal value for the terrestrial compartment:	0,72	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on Consumers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				25 mg/kg bw/d
Inhalation				0,6 mg/m3

	Effects on Workers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				
Inhalation				1,5 mg/m3

Dipotassium Peroxodisulphate

Predicted no-effect concentration - PNEC

Normal value in fresh water:	0,076	mg/l
Normal value in marine water:	0,011	mg/l
Normal value for fresh water sediment:	0,06	mg/kg wwt
Normal value for marine water sediment:	0,009	mg/kg wwt
Normal value for water, intermittent release:	0,76	mg/l
Normal value of STP microorganisms:	3,6	mg/l
Normal value for the terrestrial compartment:	0,013	mg/kg wwt

Health - Derived no-effect level - DNEL / DMEL

	Effects on Consumers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral	VND	30 mg/kg bw/d	VND	9,1 mg/kg bw/d
Inhalation	295 mg/m3	295 mg/m3	1,03 mg/m3	1,03 mg/m3
Skin	1,124 mg/cm2	200 mg/kg bw/d	0,051 mg/kg bw/d	9,1 mg/kg bw/d
	Effects on Workers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				
Inhalation	590 mg/m3	590 mg/m3	2,06 mg/m3	2,06 mg/m3
Skin	2,248 mg/kg bw/d	400 mg/kg bw/d	0,102 mg/cm2	18,2 mg/kg bw/d

Sodium Metasilicate

Predicted no-effect concentration - PNEC

Normal value in fresh water:	7,5	mg/l
Normal value in marine water:	1	mg/l
Normal value for water, intermittent release:	7,5	mg/l
Normal value of STP microorganisms:	1000	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on Consumers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				0,74 mg/kg bw/d
Inhalation				1,55 mg/m3
Skin				0,74 mg/kg bw/d
	Effects on Workers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				
Inhalation				6,22 mg/m3
Skin				1,49 mg/kg bw/d

Sodium Disilicate

Predicted no-effect concentration - PNEC

Normal value in fresh water:	7,5	mg/l
Normal value in marine water:	1	mg/l
Normal value for water, intermittent release:	7,5	mg/l
Normal value of STP microorganisms:	348	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on Consumers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral			VND	0,80 mg/kg bw/d
Inhalation			VND	1,38 mg/m3
Skin			VND	0,80 mg/kg bw/d
	Effects on Workers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				
Inhalation			VND	5,61 mg/m3
Skin			VND	1,59 mg/kg bw/d

Sodium Stearate

Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
NGV/KGV	SWE	5			
TVL-ACGIH		10			

Calcium Carbonate					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	10			
NDS/NDSCh	POL	10			
WEL	GBR	4			

White Mineral Oil					
Threshold Limit Value					
Type	TWA/8h		STEL/15min		Remarks/Observation
	mg/m3	ppm	mg/m3	ppm	
TVL-ACGIH	5		10		Oil vapours

Health - Derived no-effect level - DNEL / DMEL

	Effects on Consumers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral			VND	40 mg/kg
Inhalation			VND	35 mg/kg
Skin			VND	92 mg/kg
	Effects on Workers			
Route of Exposure	**Acute Local**	**Acute Systemic**	**Chronic Local**	**Chronic Systemic**
Oral				
Inhalation			VND	160 mg/kg
Skin			VND	220 mg/kg

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

Sodium Disilicate
An exposure limit of 2 mg / m3 (15 min TWA) is recommended by analogy with sodium hydroxide (UK EH40)

8.2 Exposure Controls:

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice. Personal protective equipment must be CE marked, showing that it complies with applicable standards. Provide an emergency shower with face and eye wash station.

Hand protection:	In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374). Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.
Skin protection:	Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Eye protection:	Wear airtight protective goggles (see standard EN 166). In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
Respiratory protection	If the threshold value is exceeded, wear a mask to protect nose and mouth(see standard EN 149).
Environmental Exposure Controls:	The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Powder
Colour:	Grey
Odour:	Characteristic
Melting point / freezing point:	Not available
Initial boiling point:	Not applicable
Flammability:	Oxidizing (Persulfates)
Lower explosive limit:	Not available
Upper explosive limit:	Not available
Flash point:	Not applicable
Auto-ignition temperature:	>140 °C
Decomposition temperature :	>65 °C
pH:	9,9
Kinematic viscosity:	Not available
Solubility:	Partially soluble in water
Partition coefficient: n-octanol/water:	Not available
Vapour pressure:	Not available
Density and/or relative density:	Not available
Relative vapour density:	Not available
Particle characteristics:	Not available

9.2 Other Information

9.2.1 Information with regard to physical hazard classes:

Information not available

9.2.2 Other safety characteristics:

Information not available

SECTION 10. STABILITY AND REACTIVITY

Product reacts with Hydrogen peroxide with oxygen production. It reacts also with reducing agents, acids and alkalis.

10.1 Reactivity:

The product may react exothermically on contact with strong oxidizing or reducing agents, strong acids or bases.

SODIUM METASILICATE The aqueous solutions act as: strong bases.

Product is stable if used according to specifications up to about 65 °C. Above this temperature, product gives oxygen and ammonia in small quantities. Over 150 °C, decomposition becomes self-accelerating, and the product gives large quantities of oxygen, which may generate a fire.

10.2 Chemical stability:

Excessively high temperatures can cause thermal decomposition.

10.3 Possibility of hazardous reactions:

See paragraph 10.1.

SODIUM METASILICATE May react dangerously with: fluorine,lithium.

10.4 Conditions to avoid:

Avoid overheating.

SODIUM METASILICATE Avoid contact with: acids.

Moisture is a very important factor: high moisture rate can significantly reduce decomposition temperature.

10.5 Incompatible materials:

Oxidizing or reducing agents. Strong acids or bases.

SODIUM METASILICATE The aqueous solution is incompatible with: acids, organic anhydrides, acrylates, alcohols, aldehydes, alkyl oxides, cresoles, caprolactam, epichlorohydrin, ethylene dichloride, glycols, isocyanates, ketones, nitrates, phenoles, vinyl acetate.
Incompatible materials: zinc, tin, copper, copper alloys, tin alloys, zinc alloys, aluminium, aluminium alloys.

Reducing agents (lotions), acids, alkalis, metals, combustive and combustible agents.

10.6 Hazardous decomposition products:

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

Carbon oxides (CO, CO2), Nitrogen oxides (NOx), Sulphur oxides (SOx), Ammonia, Ozone.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Dipotassium peroxodisulphate
Reproductive toxicity
NOAEL (oral): 250 mg/Kg bw/d Rat.
Specific target organ toxicity (STOT) repeated exposure: NOAEL (oral): 91 mg/Kg bw/d Rat
NOAEL (dermic): 91 mg/Kg bw/d Rat NOAEL (inhalation): 10,3 mg/m3/d Rat

Sodium disilicate
Sodium disilicate
Skin corrosion / irritation: Irritating to skin
Serious eye damage / Serious eye irritation: Irritating to eyes
Specific target organ toxicity (STOT) - repeated exposure: NOAEL> 159 mg / kg bw / d (oral, rat)

Metabolism, toxicokinetic, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	> 5 mg/l
ATE (Oral) of the mixture:	1173,78 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

Diammonium peroxodisulphate

LD50 (Dermal):	> 2000 mg/kg (coniglio)
LD50 (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LC50 (Inhalation mists/powders):	> 2,95 mg/l/4h Rat

Tetrasodium ethylenediaminetetraacetate

LD50 (Oral):	1780 mg/kg Rat (OECD 401)
LC50 (Inhalation mists/powders):	30 mg/l/4h Rat (OECD 412)
STA (Inhalation mists/powders):	1,5 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

Dipotassium peroxodisulphate

LD50 (Dermal):	> 1000 mg/kg Rat
LD50 (Oral):	1130 mg/kg Rat
LC50 (Inhalation mists/powders):	> 42,9 mg/l/4h Rat

Sodium metasilicate

LD50 (Dermal):	> 5000 mg/kg bw Rat
LD50 (Oral):	1150 mg/kg bw Rat
LC50 (Inhalation mists/powders):	> 2,06 g/m3 Rat

Sodium disilicate

LD50 (Dermal):	> 5000 mg/kg Rat
LD50 (Oral):	> 3400 mg/kg Rat
LC50 (Inhalation mists/powders):	> 2,06 g/m3 Rat

Calcium carbonate

LD50 (Oral):	6450 mg/kg Rat

White mineral oil

LD50 (Dermal):	> 2000 mg/kg Rat
LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation mists/powders):	> 5 mg/l

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts

LD50 (Oral):	> 300 mg/kg Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

Tetrasodium ethylenediaminetetraacetate

Not irritating (Rabbit, OECD 404).

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

Tetrasodium ethylenediaminetetraacetate

Irritating (Rabbit, OECD 405).

RESPIRATORY OR SKIN SENSITISATION

Sensitizing for the skin

Sensitizing for the respiratory system

Respiratory sensitization

Information not available

Skin sensitization

Tetrasodium ethylenediaminetetraacetate

Not sensitizing (guinea pig, Maximization Test, OECD 406).

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Tetrasodium ethylenediaminetetraacetate

In vitro genotoxicity: Negative (Salmonella typhimurium, reversion assay)

In vivo genotoxicity: Negative (Chromosomal aberration test, mouse, OECD 474).

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

White mineral oil

Not toxic for reproduction (OECD 421)

NOAEL (oral): 1000 mg/Kg bw/day

NOAEL (dermal): 2000 mg/Kg bw/day.

Adverse effects on sexual function and fertility

Sodium metasilicate

NOAEL > 159 mg/Kg bw/d (Rat).

Adverse effects on development of the offspring

Sodium metasilicate

NOAEL > 200 mg/Kg bw/d (Mouse).

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

May cause respiratory irritation

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Tetrasodium ethylenediaminetetraacetate

There were not conducted toxicity studies on repeated dose level toxicity. It is worth noting that, at physiological conditions (pH 7-9), all the sodium salts of EDTA are dissociated into sodium cations and edetic acid anionic species: taking into account this balance, is highly likely that the EDTA salts have a chelating effect on ions in vivo.

Sodium metasilicate

NOAEL: 227 mg/Kg bw/day (Rat)

NOAEL: 260 mg/Kg bw/day (Mouse).

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2 Information on other hazards:

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. ECOLOGICAL INFORMATION

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1 Toxicity:

Tetrasodium ethylenediaminetetraacetate

Dipotassium peroxodisulphate

Daphnie toxicity

EC50: 357 mg/l24h (Daphnia magna).

Bacteria Toxicity:

EC50: 36 mg/l (pseudomonas putida).

Diammonium peroxodisulphate

LC50 - for Fish	76,3 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	120 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	136 mg/l/72h Phaeodacylum tricornutum
EC10 for Crustacea	36 mg/l (18h) Pseudomonas putida

Tetrasodium ethylenediaminetetraacetate

EC50 - for Crustacea	140 mg/l/48h Daphnia magna (DIN 38412)
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Algae
Chronic NOEC for Fish	> 25,7 mg/l Danio rerio (OECD TG 210, 35 days)
Chronic NOEC for Crustacea	> 25 mg/l Daphnia magna (21 days)

Dipotassium peroxodisulphate

LC50 - for Fish	100 mg/l/96h Poecilia reticulata

Sodium metasilicate

LC50 - for Fish	1108 mg/l/96h Brachydanio rerio
EC50 - for Crustacea	1700 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	207 mg/l/72h Scenedesmus Subspicatus

Sodium disilicate

LC50 - for Fish	1108 mg/l/96h Branchydanio rerio
EC50 - for Crustacea	1700 mg/l/48h Daphnia magna

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts

LC50 - for Fish	3,6 mg/l/96h Carassius Auratus (CESIO)
EC50 - for Crustacea	4,7 mg/l/48h Daphnia (CESIO)

Product Eco-toxicity is basically due to its persulphates content.

12.2 Persistence and degradability:

Sodium disilicate

The substance is inorganic. The soluble silicates, if diluted, rapidly depolymerize producing molecular species that are not distinguishable from natural silica.

Diammonium peroxodisulphate

Solubility in water	> 10000 mg/l
Degradability	Information not available

Tetrasodium ethylenediaminetetraacetate

Degradability	Not rapidly degradable

Sodium metasilicate

Solubility in water	210000 mg/l
Degradability	Information not available

White mineral oil

Degradability	Entirely degradable

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts

Degradability	Rapidly degradable	OECD 301 A-F

Biodegradable.

12.3 Bioaccumulative potential

Dipotassium peroxodisulphate

Persulfates are very soluble in water and are not expected to bioaccumulate in soil or aqueous solutions.

Sodium disilicate

The substance has no bioaccumulation potential.

Diammonium peroxodisulphate

Partition coefficient: n-octanol/water

Not expected to bioaccumulate.

12.4 Mobility in soil

Persulphates are water soluble. When released in the environment, they may be taken away from the release source from groundwater.

12.5 Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6 Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7 Other adverse effects

Information not available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. TRANSPORT INFORMATION

14.1 UN number or ID number

ADR / RID, IMDG, IATA: 1479

14.2 UN proper shipping name

ADR / RID:	OXIDIZING SOLID, N.O.S. (Ammonium persulfate, Potassium persulfate) MIXTURE
IMDG:	OXIDIZING SOLID, N.O.S. (Ammonium persulfate, Potassium persulfate) MIXTURE
IATA:	OXIDIZING SOLID, N.O.S. (Ammonium persulfate, Potassium persulfate) MIXTURE

14.3 Transport hazard class(es)

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4 Packing group

ADR / RID, IMDG, IATA: III

14.5 Environmental hazards

ADR / RID:	No
IMDG:	No
IATA:	No

14.6 Special precautions for user

ADR / RID:	HIN - Kemler: 50 Special provision: 274	Limited Quantities: 5 kg	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-Q	Limited Quantities: 5 kg	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 563
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 559
	Special provision:	A3	

Additional informations:

ADR / RID:	Limited quantity:	max 1 kg net (primary container), max 30 kg package.
IMO/IMDG:	Limited quantity:	max 5 kg net (primary container), max 30 kg package.
IATA:	Passenger aircraft	Packing Instruction: 516; Max quantity (package): 25 kg net
		Limited quantity: Packing Instruction: Y516; Max quantity (package): 10 kg net
	Cargo aircraft	Packing Instruction: 518; Max quantity (package): 100 kg net
	ERG Code	5L

14.7 Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. REGULATORY INFORMATION

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

Seveso Category - Directive 2012/18/EU: P8

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Contained substance

Point	75	
Point	65	Diammonium peroxodisulphate REACH Reg.: 01-2119495973-19

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorization (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

Conditions of use and warnings which must be printed on the label of a cosmetic product (Legge 713/86 and subsequent amendments, Annex III Part I):

INGREDIENTS: see paragraph 3.1

INDICATIONS: PROFESSIONAL USE

PRECAUTIONS: Do not apply on the scalp if injured, irritated or affected by pathologies. Avoid contact with eyes. Rinse eyes immediately if in contact with the product. Do not use for eyelashes and eyebrows bleaching. Use only for intended applications, in accordance with the written instructions on the leaflet accompanying the cosmetic product. Rinse thoroughly after applying the mixture. Use gloves. Keep out of reach of children. For professional use only.

PAO: 12 M

Working limitation indications:

Young people working limitation (DIR 94/33/EC).

Pregnant/nursing women working limitation (DIR 92/33/CEE).

Relevant national provisions (Italy):

D.M. September 7, 2002: transposition of Directive 2001/58/EC concerning the arrangements for information on dangerous substances and preparations placed on the market.

Legislative Decree No. 65 of March 14, 2003: Implementation of Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 and Directive 2001/60/EC of 7 August 2001 concerning the classification, packaging and labeling of dangerous preparations.

Decree n.81/2008 - Consolidated Safety.

15.2 Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

Diammonium peroxodisulphate

Tetrasodium ethylenediaminetetraacetate

Dipotassium peroxodisulphate

Sodium metasilicate

Sodium disilicate

White mineral oil

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts

SECTION 16. OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Sol. 3	Oxidising solid, category 3
Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
H302+H332	Harmful if swallowed or if inhaled.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure. - TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY:

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Training advice:

Provided informations are compiled to the best of our knowledge. Their use, however, is informational and does not constitute a warranty.
Use of this product is under users control, therefore is their responsibility to comply with the correct use conditions indicated in the schedule, as well as comply with industrial hygiene practices.

Uses and restrictions recommendation:

Do not use the product for uses different from those intended. In this case, user may be subject to risks not expected.

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