

# L M N A E

L U M I N A E

## STARLIGHT CLAY-BASED BALAYAGE 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 Product Identifier

Product Name: STARLIGHT CLAY-BASED BALAYAGE LIGHTENER

##### 1.2 Identification of the substance/preparation

Product type and use: Bleaching powder for hair (for cosmetic use)

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

For urgent inquiries refer to: Jeremiah R. Sammons +1 (713) 696-9244

#### SECTION 2. HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

Cosmetics do not need to be classified or labelled pursuant to the provisions set forth in Regulation (EC) 1272/2008 (CLP Regulation) as amended.

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:

Acute toxicity, category 4	H302	Harmful if swallowed.
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:

- H302** Harmful if swallowed.
- 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:

- P261** Avoid breathing dust / fume / gas / mist / vapors / spray.
- 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 / eye protection / face protection.
- P310** Immediately call a POISON CENTER / doctor / . . .
- P304+P340** IF INHALED: remove person to fresh air and keep comfortable for breathing.
- P403+P233** Store in a well-ventilated place. Keep container tightly closed.
- P264** Wash the hands thoroughly after handling.

Contains: DISODIUM METASILICATE  
DIPOTASSIUM PEROXODISULPHATE  
AMMONIUM PEROXYDISULPHATE  
SODIO FOSFATO TRISODICO

## 2.3 Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.  
The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## 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)
<b>DIPOTASSIUM PEROXODISULPHATE</b>	CAS 7727-21-1 EC 231-781-8 INDEX 016-061-00-1 REACH Reg. 01-2119495676-19-0000	$25 \leq x < 50$	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 LD50 Oral: 1130 mg/l
<b>SODIO FOSFATO TRISODICO</b>	CAS 10101-89-0 EC 231-509-8 INDEX -	$5 \leq x < 10$	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335
<b>DISODIUM METASILICATE</b>	CAS 6834-92-0 EC 229-912-9 INDEX 014-010-00-8 REACH Reg. 01-2119449811-37-xxxx	$3 \leq x < 5$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335
<b>AMMONIUM PEROXYDISULPHATE</b>	CAS 7727-54-0 EC 231-786-5 INDEX 016-060-00-6 REACH Reg. 01-2119495973-19-0000	$1 \leq x < 5$	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
<b>MINERAL OIL</b>	CAS 8042-47-5 EC 232-455-8 INDEX - REACH Reg. 01-2119487078-27-0000	$1 \leq x < 5$	Asp. Tox. 1 H304

The full wording of hazard (H) phrases is given in section 16 of the sheet.

## SECTION 4. FIRST-AID MEASURES

### 4.1 Description of first aid measures:

Not specifically necessary. Observance of good industrial hygiene is recommended.

### 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 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.

#### 5.4 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:** Use breathing equipment if fumes or powders are released into the air. 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:** Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. 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:

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

#### 7.2 Conditions for safe storage, including any incompatibilities:

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

Store in cool (below 30 °C) and dry areas. Avoid contamination and avoid the presence of reducing agents like lotions and permanent waves. Discard any unused mixture with developer or bleaching lotions, since the container may break. AVOID humid organic material as paper towel, wood, clothes, etc. which could induce spontaneous combustion. Protect from heat and sunlight; store in places far from rain and humidity; never store outdoors. Store separately from other dangerous and incompatible substances.

#### 7.3 Specific end use(s):

Information not available.

### 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
TLV-ACGIH		

### DIPOTASSIUM PEROXODISULPHATE

Predicted no-effect concentration - PNEC

Normal value in fresh water:	0,0763	mg/l
Normal value in marine water:	0,011	mg/l
Normal value for marine water sediment:	0,0396	mg/kg
Normal value for water, intermittent release:	0,763	mg/l
Normal value of STP microorganisms:	3,6	mg/l
Normal value for the terrestrial compartment:	0,015	mg/kg

## AMMONIUM PEROXYDISULPHATE

Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
VLA	ESP	0,1			
TVL-ACGIH		0,1			

### Predicted no-effect concentration - PNEC

Normal value in fresh water:	0,0763	mg/l
Normal value in marine water:	0,011	mg/l
Normal value for fresh water sediment:	275	mg/kg
Normal value for marine water sediment:	0,0396	mg/kg
Normal value for water, intermittent release:	0,763	mg/l
Normal value of STP microorganisms:	3,6	mg/l
Normal value for the terrestrial compartment:	0,015	mg/kg

### Health - Derived no-effect level - DNEL / DMEL

Effects on Consumers				
Route of Exposure	Acute Local	Acute Systemic	Chronic Local	Chronic Systemic
Oral		30 mg/kg bw/d		9,1 mg/kg bw/d
Inhalation	295 mg/m <sup>3</sup>	295 mg/m <sup>3</sup>	1,03 mg/m <sup>3</sup>	1,03 mg/m <sup>3</sup>
Skin	1,124 mg/cm <sup>2</sup>	200 mg/kg bw/d	0,051 mg/cm <sup>2</sup>	9,1 mg/kg bw/d
Effects on Workers				
Route of Exposure	Acute Local	Acute Systemic	Chronic Local	Chronic Systemic
Oral				
Inhalation		590 mg/m <sup>3</sup>	2,06 mg/m <sup>3</sup>	2,06 mg/m <sup>3</sup>
Skin	2,248 mg/cm <sup>2</sup>	400 mg/kg bw/d	0,102 mg/cm <sup>2</sup>	18.2 mg/kg bw/d

## DISODIUM METASILICATE

### 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/m <sup>3</sup>
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		6,22 mg/m <sup>3</sup>
Skin				1,49 mg/kg bw/d

## MINERAL OIL

Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
TVL-ACGIH		5			

## 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 bw/d
Inhalation			VND	35 mg/m <sup>3</sup>
Skin			VND	220 mg/kg bw/d
Effects on Workers				
Route of Exposure	Acute Local	Acute Systemic	Chronic Local	Chronic Systemic
Oral				
Inhalation			VND	160 mg/m <sup>3</sup>
Skin			VND	220 mg/kg bw/d

### 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.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m<sup>3</sup>; PNOC inhalable fraction: 10 mg/m<sup>3</sup>). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

### 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 Use a type P filtering face mask, whose class (1, 2 or 3) and effective need, must be defined according to the outcome of risk assessment (see standard EN 149).
- Environmental Exposure 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: Light blue, white, grey, green, violet, violet- blue
- Odour: Characteristic
- Melting point / freezing point: Not available
- Initial boiling point: Not available
- Flammability: Not available
- Lower explosive limit: Not available
- Upper explosive limit: Not available
- Flash point: Not available
- Auto-ignition temperature: Not available
- pH: Not available
- Kinematic viscosity: Not available
- Solubility: Partially soluble
- 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

### 10.1 Reactivity:

There are no particular risks of reaction with other substances in normal conditions of use.

DISODIUM METASILICATE

The aqueous solutions act as: strong bases.

### 10.2 Chemical stability:

The product is stable in normal conditions of use and storage.

### 10.3 Possibility of hazardous reactions:

The powders are potentially explosive when mixed with air.

DISODIUM METASILICATE

May react dangerously with: fluorine, lithium.

### 10.4 Conditions to avoid:

Avoid environmental dust build-up.

### 10.5 Incompatible materials:

DISODIUM METASILICATE

The aqueous solution is incompatible with: acids, organic anhydrides, acrilates, alcohols, aldehydes, alkyl oxides, cresoles, caprolactam, epichlorohydrin, ethylene dichloride, glycols, isocyanates, ketones, nitrates, phenoles, vinyl acetate.

### 10.6 Hazardous decomposition products:

Information not available.

## SECTION 11. TOXICOLOGICAL INFORMATION

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

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:	Not classified (no significant component)
ATE (Oral) of the mixture:	1843,39 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

#### DIPOTASSIUM PEROXODISULPHATE

LD50 (Dermal):	> 10000 mg/kg (coniglio)
LD50 (Oral):	1130 mg/kg (ratto)
LC50 (Inhalation mists/powders):	> 42,9 mg/l (ratto)

#### SODIO FOSFATO TRISODICO

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 2000 mg/kg
LC50 (Inhalation mists/powders):	> 0,83 mg/l

#### AMMONIUM PEROXYDISULPHATE

LD50 (Dermal):	> 2000 mg/kg Rat
LD50 (Oral):	272 mg/kg Rat
STA (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):	> 5,1 mg/l/4h Rat

#### DISODIUM METASILICATE

LD50 (Dermal):	> 5000 mg/kg bw (Ratto)
LD50 (Oral):	1152 mg/kg bw (Ratto)
LC50 (Inhalation mists/powders):	> 2,06 g/m <sup>3</sup> (Ratto)

#### SKIN CORROSION / IRRITATION

Causes skin irritation

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

#### RESPIRATORY OR SKIN SENSITISATION

Sensitizing for the skin

Sensitizing for the respiratory system

Respiratory sensitization

Information not available

Skin sensitization

Information not available

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

#### CARCINOGENICITY

Does not meet the classification criteria for this hazard class

## REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

### Adverse effects on sexual function and fertility

Information not available

### Adverse effects on development of the offspring

Information not available

### 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

### 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:**

#### MINERAL OIL

EC50 - for Crustacea	100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	100 mg/l/72h Pseudokirchneriella subcapitata

#### SODIO FOSFATO TRISODICO

LC50 - for Fish	> 100 mg/l/96h (Oncorhynchus mykiss -Trotta iridea) Linee Guida 203 per il Test dell'OECD
EC50 - for Crustacea	> 100 mg/l/48h (Daphnia magna -Pulce d'acqua grande) OECD TG 202
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h (Desmodesmus subspicatus - alga verde) OECD TG 201

#### DIPOTASSIUM PEROXODISULPHATE

LC50 - for Fish	107,6 mg/l/96h <i>Scophthalmus maximus</i>
EC50 - for Crustacea	120 mg/l/48h ( <i>daphnia</i> )
EC50 - for Algae / Aquatic Plants	320 mg/l/72h <i>Phaeodactylum</i>

#### DISODIUM METASILICATE

LC50 - for Fish	1108 mg/l/96h ( <i>Brachydanio rerio</i> )
EC50 - for Crustacea	1700 mg/l/48h ( <i>Daphnia magna</i> )
EC50 - for Algae / Aquatic Plants	207 mg/l/72h ( <i>Schenedesmus subspicatus</i> )

#### AMMONIUM PEROXYDISULPHATE

LC50 - for Fish	107,6 mg/l/96h <i>Scophthalmus maximus</i>
EC50 - for Crustacea	120 mg/l/48h ( <i>Daphnia magna</i> )
EC50 - for Algae / Aquatic Plants	320 mg/l/72h <i>Phaeodactylum</i>
EC10 - for Algae / Aquatic Plants	36 mg/l/72h <i>Pseudomonas putida</i>

#### 12.2 Persistence and degradability:

##### DIPOTASSIUM PEROXODISULPHATE

Rapidly degradable

##### DISODIUM METASILICATE

Solubility in water	210000 mg/l
Degradability	Information not available

##### AMMONIUM DIHYDROGEN PHOSPHATE

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

##### AMMONIUM PEROXYDISULPHATE

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

#### 12.3 Bioaccumulative potential

Information not available

#### 12.4 Mobility in soil

Information not available

#### 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  $\geq$  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 authorized waste management firm, in compliance with national and local regulations.

#### CONTAMINATED PACKAGING

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

## SECTION 14. TRANSPORT INFORMATION

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.1 UN number or ID number

Not applicable

### 14.2 UN proper shipping name

Not applicable

### 14.3 Transport hazard class(es)

Not applicable

### 14.4 Packing group

Not applicable

### 14.5 Environmental hazards

Not applicable

### 14.6 Special precautions for user

Not applicable

### 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: None

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

Contained substance

Point	75	
Point	65	AMMONIUM PEROXYDISULPHATE REACH Reg.: 01-2119495973-19-0000
Point	65	AMMONIUM DIHYDROGEN PHOSPHATE

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  $\geq$  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

### 15.2 Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## 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
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
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
H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.

#### 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).

#### LEGEND:

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.