



**SAFETY DATA SHEET** Prepared according to Regulation on  
Registration, Evaluation, Authorization and Restriction of Chemicals.  
(23.06.2017 - No: 30105)

**SMARTPOWER Ultra**

**Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifier**

Product name : SMARTPOWER Ultra  
Product code : 119316E  
Use of the Substance/Mixture : Machine Warewashing Detergent  
Substance type: Mixture

**For professional users only.**

Product dilution information : 0.1 % - 0.25 %

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

Identified uses : Dishwash and rinse aid product; Automatic process  
Recommended restrictions on use : Reserved for industrial and professional use.

**1.3 Details of the supplier of the safety data sheet**

Company : Ecolab Temizleme Sistemleri Ltd. Şti  
Esentepe Mahallesi, Cevizli - Esentepe E-5 Yanyol Caddesi  
Vizyon Bulvar No: 13, Kat 1 No: 65 Turkey TR 34870 KARTAL /  
İSTANBUL  
+90 (216) 458 69 00, Fax: +90 (216) 458 69 07

Company : Ecolab Gulf FZE  
P.O. Box 17063  
Jebel Ali Free Zone Area, Near Container Terminal 3 - North  
Zone, Dubai UAE 00971 4 8014444 Customer Services

Nalco Egypt Trading  
5th Settlement, South 90th St.  
The Address Building No 67th – 1st floor, New Cairo, Cairo, Egypt  
11835  
0020 2 25 37 1195

Ecolab Maroc S.A.R.L.  
Centre Green Works Batiment B, Bureau N° 13 ,  
109 Route de Bouskoura, Sidi Maarouf, 27182, Casablanca,  
Morocco 00212 22 58 25 30 - 35

Company : Ecolab Food Safety & Hygiene Solutions Pvt. Ltd  
WeWork, 247 Park Bus Stop, 13th floor, 247 Park, Hindustan C,

**SMARTPOWER Ultra**

LBS Road, Gandhi Nagar, Vikhroli West,  
Mumbai, Maharashtra. 400 079, India Phone: +91 22 48808555,  
+91 22 48808535 Toll free number: 1800 209 2530

**1.4 Emergency telephone number**

Emergency telephone : +32-(0)3-575-5555 Trans- European  
number

Poison Information Centre : 114 Ulusal Zehir Danışma Merkezi (UZEM)  
telephone number

Date of Compilation/Revision : 12.09.2023  
Version : 1.1

**Section: 2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification (T.R. SEA No 28848)**

**Product AS SOLD**

Eye irritation, Category 2 H319  
Chronic aquatic toxicity, Category 3 H412

**Product AT USE DILUTION**

Not a hazardous substance or mixture.

**2.2 Label elements**

**Labelling (T.R. SEA No 28848)**

**Product AS SOLD**

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

Supplemental Hazard Statements : EUH031 Contact with acids liberates toxic gas.

Precautionary Statements : **Prevention:** P273 Avoid release to the environment.

**Product AT USE DILUTION**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

**SMARTPOWER Ultra**

**2.3 Other hazards**

**Product AS SOLD**

Mixing this product with acid or ammonia releases chlorine gas.

**Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

**Product AS SOLD**

**Hazardous components**

Chemical Name	CAS-No. EC-No.	Classification (T.R. SEA No 28848)	Concentration :[%]
Sodium Carbonate	497-19-8 207-838-8	Eye irritation Category 2; H319	>= 30 - < 50
Phosphonates	67953-76-8 267-956-0	Acute toxicity Category 4; H302	>= 2.5 - < 5
Sodium dichloro-s-triazinetrione dihydrate	51580-86-0 220-767-7	Acute toxicity Category 4; H302 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H335 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410  Specific target organ toxicity - single exposure Category 3 H335 >= 10 %  EUH031 >= 10 %	>= 1 - < 2.5

**Product AT USE DILUTION**

Remarks : No hazardous ingredients

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Section: 4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

**Product AS SOLD**

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
- In case of skin contact : Rinse with plenty of water.
- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Get medical attention if symptoms occur.

**Product AT USE DILUTION**

- In case of eye contact : Rinse with plenty of water.

**SMARTPOWER Ultra**

In case of skin contact	: Rinse with plenty of water.
If swallowed	: Rinse mouth. Get medical attention if symptoms occur.
If inhaled	: Get medical attention if symptoms occur.

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

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

**4.3 Indication of immediate medical attention and special treatment needed**

Treatment : Treat symptomatically.

**Section: 5. FIREFIGHTING MEASURES**

**Product AS SOLD**

**5.1 Extinguishing media**

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: None known.

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during firefighting	: Exposure to decomposition products may be a hazard to health.
Hazardous combustion products	: Depending on combustion properties, decomposition products may include following materials: Carbon oxides Sulphur oxides metal oxides

**5.3 Advice for firefighters**

Special protective equipment for firefighters	: Use personal protective equipment.
Further information	: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

**Section: 6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

**Product AS SOLD**

Advice for non-emergency personnel : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

**SMARTPOWER Ultra**

Advice 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.

**Product AT USE DILUTION**

Advice for non-emergency personnel : Refer to protective measures listed in sections 7 and 8.

Advice 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.

**6.2 Environmental precautions**

**Product AS SOLD**

Environmental precautions : Do not allow contact with soil, surface or ground water.

**Product AT USE DILUTION**

Environmental precautions : No special environmental precautions required.

**6.3 Methods and materials for containment and cleaning up**

**Product AS SOLD**

Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.  
Collect spillage.

**Product AT USE DILUTION**

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.

For personal protection see section 8.

See Section 13 for additional waste treatment information.

**Section: 7. HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

**Product AS SOLD**

Advice on safe handling : Avoid contact with skin and eyes. Use only with adequate ventilation. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

**SMARTPOWER Ultra**

**Product AT USE DILUTION**

Advice on safe handling	: Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). For personal protection see section 8.
Hygiene measures	: Wash hands before breaks and immediately after handling the product.

**7.2 Conditions for safe storage, including any incompatibilities**

**Product AS SOLD**

Requirements for storage areas and containers	: Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
Storage temperature	: 0 °C to 40 °C

**Product AT USE DILUTION**

Requirements for storage areas and containers	: Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
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**7.3 Specific end uses**

**Product AS SOLD**

**Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

**Product AS SOLD**

**Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Contains no substances with occupational exposure limit values.				
chlorine	7782-50-5	STEL 15 min	0.5 ppm 1.5 mg/m <sup>3</sup>	TR OEL
chlorine	7782-50-5	TWA	1 ppm 3 mg/m <sup>3</sup>	IN OEL
		STEL	3 ppm 9 mg/m <sup>3</sup>	IN OEL

**DNEL**

Sodium Carbonate	: End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 10 mg/m <sup>3</sup>  End Use: Consumers Exposure routes: Inhalation Potential health effects: Acute local effects Value: 10 mg/m <sup>3</sup>
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**8.2 Exposure controls**

**Product AS SOLD**

**Appropriate engineering controls**

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

**Individual protection measures**

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling.

Eye/face protection (EN 166) : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Hand protection (EN 374) : No special protective equipment required.

Skin and body protection (EN 14605) : No special protective equipment required.

Respiratory protection (EN 143, 14387) : When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:P

**Product AT USE DILUTION**

**Appropriate engineering controls**

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

Hygiene measures : Wash hands before breaks and immediately after handling the product.

Eye/face protection (EN 166) : No special protective equipment required.

Hand protection (EN 374) : No special protective equipment required.

Skin and body protection (EN 14605) : No special protective equipment required.

Respiratory protection (EN 143, 14387) : None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

**SMARTPOWER Ultra**

**Environmental exposure controls**

General advice : Consider the provision of containment around storage vessels.

**Section: 9. PHYSICAL AND CHEMICAL PROPERTIES**

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

	<b>Product AS SOLD</b>	<b>Product AT USE DILUTION</b>
Appearance	: solid	liquid
Colour	: white	colourless
Odour	: Chlorine	Chlorine
pH	: 10.45 - 10.95, 1 %	10.45 - 10.95
Flash point	: Not applicable.	
Odour Threshold	: Not applicable and/or not determined for the mixture	
Melting point/freezing point	: Not applicable and/or not determined for the mixture	
Initial boiling point and boiling range	: > 100 °C	
Evaporation rate	: Not applicable and/or not determined for the mixture	
Flammability (solid, gas)	: Not applicable and/or not determined for the mixture	
Upper explosion limit	: Not applicable and/or not determined for the mixture	
Lower explosion limit	: Not applicable and/or not determined for the mixture	
Vapour pressure	: Not applicable and/or not determined for the mixture	
Relative vapour density	: Not applicable and/or not determined for the mixture	
Relative density	: 3.2 - 3.6	
Water solubility	: soluble	
Solubility in other solvents	: Not applicable and/or not determined for the mixture	
Partition coefficient: n-octanol/water	: Not applicable and/or not determined for the mixture	
Auto-ignition temperature	: Not applicable and/or not determined for the mixture	
Thermal decomposition	: Not applicable and/or not determined for the mixture	
Viscosity, kinematic	: Not applicable and/or not determined for the mixture	
Explosive properties	: Not applicable and/or not determined for the mixture	
Oxidizing properties	: Yes	

**9.2 Other information**

Not applicable and/or not determined for the mixture

**Section: 10. STABILITY AND REACTIVITY**

**SMARTPOWER Ultra**

**Product AS SOLD**

**10.1 Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability**

Stable under normal conditions.

**10.3 Possibility of hazardous reactions**

Mixing this product with acid or ammonia releases chlorine gas.

**10.4 Conditions to avoid**

None known.

**10.5 Incompatible materials**

Acids

Bases

**10.6 Hazardous decomposition products**

Depending on combustion properties, decomposition products may include following materials:

Carbon oxides

Sulphur oxides

metal oxides

**Section: 11. TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**

**Product AS SOLD**

Information on likely routes of : Eye contact, Skin contact exposure

**Product**

Acute oral toxicity	: Acute toxicity estimate : > 2,000 mg/kg
Acute inhalation toxicity	: There is no data available for this product.
Acute dermal toxicity	: There is no data available for this product.
Skin corrosion/irritation	: There is no data available for this product.
Serious eye damage/eye irritation	: There is no data available for this product.
Respiratory or skin sensitization	: Contains an ingredient that can cause asthmatic-like reactions in sulfite-sensitive individuals.
Carcinogenicity	: There is no data available for this product.

**SMARTPOWER Ultra**

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

**Components**

Acute oral toxicity : Sodium Carbonate LD50 rat: 2,800 mg/kg

Phosphonates LD50 rat: 940 mg/kg

Sodium dichloro-s-triazinetrione dihydrate LD50 rat: 1,823 mg/kg

**Components**

Acute dermal toxicity : Sodium dichloro-s-triazinetrione dihydrate LD50 rat: > 5,000 mg/kg

**Potential Health Effects**

**Product AS SOLD**

Eyes : Causes serious eye irritation.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

**Product AT USE DILUTION**

Eyes : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

**Experience with human exposure**

**Product AS SOLD**

Eye contact : Redness, Pain, Irritation

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

**SMARTPOWER Ultra**

Inhalation : No symptoms known or expected.

**Product AT USE DILUTION**

Eye contact : No symptoms known or expected.

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

**Section: 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**Product AS SOLD**

Environmental Effects : Harmful to aquatic life with long lasting effects.

**Product AT USE DILUTION**

Environmental Effects : This product has no known ecotoxicological effects.

**Product AS SOLD**

**Product**

Toxicity to fish : no data available

Toxicity to daphnia and other aquatic invertebrates : no data available

Toxicity to algae : no data available

**Components**

Toxicity to fish : Sodium Carbonate96 h LC50 Lepomis macrochirus (Bluegill sunfish): 300 mg/l

Sodium dichloro-s-triazinetrione dihydrate96 h LC50 Oncorhynchus mykiss (rainbow trout): 0.24 mg/l

**Components**

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate48 h EC50 Ceriodaphnia (water flea): 213.5 mg/l

Phosphonates48 h EC50: 167 mg/l

Sodium dichloro-s-triazinetrione dihydrate48 h EC50 Daphnia magna (Water flea): 0.196 mg/l

**Components**

Toxicity to algae : Sodium dichloro-s-triazinetrione dihydrate72 h EC50 Skeletonema costatum (marine diatom): > 100 mg/l

**12.2 Persistence and degradability**

**Product**

**SMARTPOWER Ultra**

**Biodegradability** : The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC

**Components**

**Biodegradability** : Sodium CarbonateResult: Not applicable - inorganic

PhosphonatesResult: Poorly biodegradable

Sodium dichloro-s-triazinetrione dihydrateResult: Poorly biodegradable

**12.3 Bioaccumulative potential**

no data available

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

**Product**

**Assessment** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

no data available

**Section: 13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

**13.1 Waste treatment methods**

**Product AS SOLD**

**Product** : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations  
Dispose of wastes in an approved waste disposal facility.

**Contaminated packaging** : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

**Guidance for Waste Code selection** : Inorganic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It

**SMARTPOWER Ultra**

is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

**Product AT USE DILUTION**

Product	: Diluted product can be flushed to sanitary sewer if regulations permit.
Contaminated packaging	: Dispose of in accordance with local, state, and federal regulations.

**Section: 14. TRANSPORT INFORMATION**

**Product AS SOLD**

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

**Land transport (ADR/ADN/RID)**

14.1 UN number	: Not dangerous goods
14.2 UN proper shipping name	: Not dangerous goods
14.3 Transport hazard class(es)	: Not dangerous goods
14.4 Packing group	: Not dangerous goods
14.5 Environmental hazards	: Not dangerous goods
14.6 Special precautions for user	: Not dangerous goods

**Air transport (IATA)**

14.1 UN number	: Not dangerous goods
14.2 UN proper shipping name	: Not dangerous goods
14.3 Transport hazard class(es)	: Not dangerous goods
14.4 Packing group	: Not dangerous goods
14.5 Environmental hazards	: Not dangerous goods
14.6 Special precautions for user	: Not dangerous goods

**Sea transport (IMDG/IMO)**

14.1 UN number	: Not dangerous goods
14.2 UN proper shipping name	: Not dangerous goods
14.3 Transport hazard class(es)	: Not dangerous goods
14.4 Packing group	: Not dangerous goods
14.5 Environmental hazards	: Not dangerous goods

**SMARTPOWER Ultra**

14.6 Special precautions for user : Not dangerous goods

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not dangerous goods

**Section: 15. REGULATORY INFORMATION**

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

according to Detergents Regulation EC 648/2004 : 15 % or over but less than 30 %: Phosphates  
less than 5 %: Phosphonates, Anionic surfactants, Non-ionic surfactants, Chlorine-based bleaching agents, Polycarboxylates

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable.

**National Regulations**

**Take note of Dir 94/33/EC on the protection of young people at work.**

Other regulations : According to 11 December 2013, Numbered 28848 (Bis), "Ministry of Environment and Forestry"; Regulation on Classification, Labelling and Packaging of Substances and Mixtures.  
Prepared according to Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals. (23.06.2017 - No: 30105)

**15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out on the product.

**Section: 16. OTHER INFORMATION**

**Procedure used to derive the classification according to REGULATION (EC) No 1272/2008 and Regulation T.R. SEA No 28848**

Classification	Justification
Eye irritation 2, H319	Calculation method
Chronic aquatic toxicity 3, H412	Calculation method

**Full text of H-Statements**

- H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

**SMARTPOWER Ultra**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by

: Name, Surname: AYDAN BAŞTÜRK  
Certificate number: KDU01.31.04  
Certificate date: 20.05.2023  
Certificate expiry date: : 20.05.2028  
Contact: +90 216 458 6962

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

**REVISED INFORMATION:** Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.