

Caustic soda (micro pearls)

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830

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

1.1 Product identifier

Product name : Caustic soda (micro pearls)
Chemical name : Preparations containing sodium hydroxide. (except for preparations which contain 5% or less of sodium hydroxide)
EC number : 215-185-5
CAS number : 1310-73-2
INCI Name : SODIUM HYDROXIDE
REACH Registration number : 01-2119457892-27
Other means of identification : caustic soda; Sodium hydroxide (Na(OH)); sodium hydroxide, solid; caustic soda, solid;

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

Chemical, textile, cellulose and paper, rubber and pharmaceutical industries. It is also used in wastewater neutralization processes. It has cleaning, disinfecting, degreasing, conditioning, corrosive and highly hygroscopic properties.

1.3 Details of the supplier of the safety data sheet

distripark.com sp. z o.o., Sienkiewicza 4, 56-120 Brzeg Dolny, Poland
Telephone: +48 71 794 3733
E-mail adress: sklep@distripark.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : Not available.

Supplier

Telephone number : Telephone: +48 71 794 2555, +48 71 794 2441 (available 24h/day) or +48 71 794 2690 (fax) at PCC Rokita SA or the closest local Fire Brigade

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Met. Corr. 1, H290
Skin Corr. 1A, H314
Eye Dam. 1, H318

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

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

2.2 Label elements

Hazard pictograms :



Signal word : Danger
Hazard statements : H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

Precautionary statements

Prevention : P260nie wdychać Do not breathe dust/fume/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response : P303+P351+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards

Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII : Not applicable.
Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Not applicable.
Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.1 Substance : Mono-constituent substance

Substance	Identifiers	%	Classification	
			Regulation (EC) No. 1272/2008 [CLP/GHS]	Type
Sodium hydroxide	EC: 215-185-5 CAS: 1310-73-2 Index: 011-002-00-6	>99	Skin Corr. 1A, H314 Met. Corr. 1, H290 Eye Dam. 1, H318 See Section 16 for the full text of the H statements declared above.	[A]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

- [A] Constituent
- [B] Impurity
- [C] Stabilizing additive

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

3.2 Mixture : Not applicable.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes severe burns.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : No specific fire or explosion hazard.

Hazardous combustion products : Decomposition products may include the following materials:
metal oxide/oxides

5.3 Advice for firefighters

- Special precautions for firefighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

- 6.3 Methods and materials for containment and cleaning up** : Move containers from spill area. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

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

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Sodium hydroxide	Regulation of the Minister of Family, Labor and Social Policy (J of Laws 2018, item 1286) (Poland, 11/2017). TWA: 0,5 mg/m ³ 8 hours. STEL: 1 mg/m ³ 15 minutes.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
sodium hydroxide	DNEL	Long term Inhalation	1 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1 mg/m ³	Workers	Local

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical product, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : In case of a long-term direct exposure, nitrile gloves 0,85 mm thick, of minimum time of penetration 480 min should be used. In a case of a short-term direct exposure, natural rubber (latex) / nitrile gloves 0,35 mm thick, of minimum time of penetration 30 min should be used.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid.
- Color** : Pellets white.
- Odor** : Odorless.
- Odor threshold** : Not available.
- pH** : 13 [Conc. (% w/w): 1%]
- Melting point/freezing point** : 318°C
- Initial boiling point and boiling range** : 1390°C
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Vapor pressure** : Lack of data.
- Vapor density** : Lack of data.
- Density** : 2,13 g/cm³ [20°C]
- Relative density** : Lack of data.
- Solubility(ies)** : Easily soluble in the following materials: cold water and hot water.
- Solubility in water at room temperature (g/l)** : 1090 g/l
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.
- Additional information** : Lack of data.

9.2 Other information

No additional information.

Note: Integers (i.e. 3 or 7) should be read as decimals (3.0 or 7.0)

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : Will corrode various metals: aluminum, brass, zinc, tin.
- 10.2 Chemical stability** : Product is stable in conditions without supply of air, of moisture.
- 10.3 Possibility of hazardous reactions** : Reactions: acids, metals. Reactions can lead to an explosion.

10.4 Conditions to avoid : Do not allow contact with air. Protect against water or moist air.

10.5 Incompatible materials : acids, phenol, metals, nitrile, cyanide, oxidizing substances, organic chemicals - flammable

10.6 Hazardous decomposition products : No dangerous substances are released.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
sodium hydroxide	LD50 Intraperitoneal	Mouse	40 mg/kg	-
	LDLo Oral	Human	1,57 mg/kg	-
	LDLo Oral	Rabbit	500 mg/kg	-
	TDL0 Oral	Rat	44 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sodium hydroxide	Eyes - Severe irritant	Monkey	-	24 hours 1 Percent	-
	Eyes - Mild irritant	Rabbit	-	400 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Eyes - Severe irritant	Rabbit	-	0,5 minutes 1 milligrams	-
	Skin - Mild irritant	Human	-	24 hours 2 Percent	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
sodium hydroxide	Eyes - Severe irritant	Monkey	-	24 hours 1 Percent	-
	Eyes - Mild irritant	Rabbit	-	400 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 50 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Eyes - Severe irritant	Rabbit	-	0,5 minutes 1 milligrams	-
	Skin - Mild irritant	Human	-	24 hours 2 Percent	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : Causes severe burns.
Eye contact : Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : No specific data.
Ingestion : Adverse symptoms may include the following:
stomach pains
Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

Long term exposure

- Potential immediate effects** : Not available.
Potential delayed effects : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
sodium hydroxide	Acute EC50 40,38 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

12.2 Persistence and degradability

- Conclusion/Summary** : Not available.

12.3 Bioaccumulative potential

Not applicable.

12.4 Mobility in soil

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

12.5 Results of PBT and vPvB assessment

- PBT** : Not applicable.
P: Not available. B: Not available. T: Not available.
vPvB : Not applicable.
vP: Not available. vB: Not available.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
16 03 03*	inorganic wastes containing hazardous substances




Packaging

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

Type of packaging	European waste catalogue (EWC)
Bag	15 01 10* packaging containing residues of or contaminated by hazardous substances
Container	15 01 10* packaging containing residues of or contaminated by hazardous substances

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN1823	UN1823	UN1823
14.2 UN proper shipping name	SODIUM HYDROXIDE, SOLID	SODIUM HYDROXIDE, SOLID	Sodium hydroxide, solid
14.3 Transport hazard class(es)	8 	8 	8 
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.
Additional information	Hazard identification number 80 Limited quantity 1 kg Tunnel code (E)	Emergency schedules F-A, S-B	Quantity limitation Passenger and Cargo Aircraft: 15 kg. Packaging instructions: 859. Cargo Aircraft Only: 50 kg. Packaging instructions: 863. Limited Quantities - Passenger Aircraft: 5 kg. Packaging instructions: Y844.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

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

REGULATION (EC) NO 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) constituting Appendix C to the Convention concerning International Carriage by Rail (COTIF)

International Maritime Dangerous Goods Code (IMDG CODE)

IATA /International Air Transport Association/ Dangerous Goods Regulations (IATA DGR)

Ordinance of the Minister of Labour and Social Policy of 12 June 2018 concerning maximum permissible concentrations and intensities of agents harmful to health in a work environment (Journal of Laws 2018 item 1286).

Act on Waste of 14 December 2012 (Dz. U. /Journal of Laws/ of 2013, No. 0, item 21)

Act on Packaging and Packaging Waste Management of 13 June 2013 (Dz. U. /Journal of Laws/ of 2013, No. 0, item 888)

Act on Chemical Substances and Their Mixtures of 25 February 2011 (Dz. U. /Journal of Laws/ No. 63, item 322)

Regulation of the Minister of Labour and Social Policy on the general occupational health and safety regulations of 26 September 1997 (Dz. U. /Journal of Laws/ of 2003, No. 169, item 1650 as amended)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Priority List Chemicals : Not determined

Seveso Directive

This product is not controlled under the Seveso Directive.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Changes to the Safety Data Sheet	: Not applicable.
Training advice	: Ensure operatives are trained to minimise exposures.
Abbreviations and acronyms	: <ul style="list-style-type: none"> ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS = Chemical Abstracts Service CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] CMR = Carcinogen, Mutagen or Reproductive toxicant CSA = Chemical Safety Assessment CSR = Chemical Safety Report DNEL = Derived No Effect Level EC number = EINECS or ELINCS number EC50 = Half maximal effective concentration ES = Exposure Scenario EUH statement = CLP-specific Hazard statement EWC = European Waste Catalogue GHS = Globally Harmonized System of Classification and Labelling of Chemicals H statement = CLP/GHS Hazard statement IATA = International Air Transport Association IC50 = Half maximal inhibitory concentration IMDG = International Maritime Dangerous Goods LC50 = Median lethal concentration LD50 = Median lethal dose LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) OECD = Organisation for Economic Co-operation and Development PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006] RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number STOT = Specific Target Organ Toxicity SVHC = Substances of Very High Concern VOC = Volatile Organic Compound vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318	Expert judgment Expert judgment Expert judgment
Full text of abbreviated H statements	: H290 H314 H318 May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage.
Full text of classifications [CLP/GHS]	: Eye Dam. 1, H318 Met. Corr. 1, H290 Skin Corr. 1A, H314 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 CORROSIVE TO METALS - Category 1 SKIN CORROSION/IRRITATION - Category 1A

Notice to reader

The information contained herein is accurate to the latest knowledge and describes the product from the point of view of help and environmental protection as well as safe handling. The information presented in this SDS refers to the technical product only and will not apply to any processed product. Final determination of the suitability of any materials for the chosen application(s) is the sole responsibility of the user"