

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

Code: 054011
Product name: IPOCLOR 30
UFI: UDA0-70N1-M004-1JNC

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

Intended use: Chlorinator agent for aqueducts, swimming pools and purification plants in general.

Identified Uses	Industrial	Professional	Consumer
Water treatment products - reactive	-	-	ERC: 8b, 8e. PC: 20, 37. LCS: C.
Product for water treatment - reactive	-	ERC: 8b, 8e. PROC: 19, 8a, 8b, 9. PC: 20, 37. LCS: PW.	-

Uses Advised Against

All those not foreseen

1.3. Details of the supplier of the safety data sheet

Name: Barchemicals srl
Full address: Via Salvador Allende 14
District and Country: 41051 Castelnuovo Rangone ((MO))
Italia
Tel: +39 059 536502
Fax: +39 059 536742
e-mail address of the competent person responsible for the Safety Data Sheet: sds@barchemicals.it
Supplier: Barchemicals

1.4. Emergency telephone number

For Italy:

For urgent inquiries refer to

Centro Antiveleni di Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia) -
Centro Antiveleni di Milano 02 66101029 (CAV Ospedale Niguarda Ca' Granda -
Milano) - Centro Antiveleni di Bergamo 800 883300 (CAV Ospedali Riuniti -
Bergamo) - Centro Antiveleni di Firenze 055 7947819 (CAV Ospedale Careggi -
Firenze) - Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli - Roma) -
Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I - Roma) -
Centro Antiveleni di Roma 06 68593726 (CAV Ospedale Pediatrico Bambino Gesù) -
Centro Antiveleni di Napoli 081 5453333 (CAV Ospedale Cardarelli - Napoli) -
Centro Antiveleni di Foggia 0881 800183459 (Az. Osp. Univ. Foggia) - Centro
Antiveleni di Verona 800011858 (Azienda Ospedaliera Integrata Verona).

SECTION 2. Hazards identification ... / >>

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:

Substance or mixture corrosive to metals, category 1	H290	May be corrosive to metals.
Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

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:

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe dust/fume/gas/mist/vapours/ spray.
P273	Avoid release to the environment.
P280	Wear protective gloves / protective clothing / eye protection / face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/ ...
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

Contains: SODIUM HYDROXIDE
SODIUM HYPOCHLORITE

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

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
SODIUM HYPOCHLORITE		
CAS	7681-52-9	$19 \leq x < 24$
EC	231-668-3	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH031, Classification note according to Annex VI to the CLP Regulation: B
INDEX	017-011-00-1	EUH031: \geq 5%
REACH Reg.	01-2119488154-34-XXXX	
SODIUM CHLORATE		
CAS	7775-09-9	$4,8 \leq x < 5$
EC	231-887-4	Ox. Sol. 1 H271, Acute Tox. 4 H302, Aquatic Chronic 2 H411
INDEX		STA Oral: 500 mg/kg
REACH Reg.	*	
SODIUM HYDROXIDE		
CAS	1310-73-2	$1,819 \leq x < 1,919$
EC	215-185-5	Met. Corr. 1 H290, Skin Corr. 1A H314, Eye Dam. 1 H318
INDEX	011-002-00-6	Skin Corr. 1B H314: \geq 2%, Skin Irrit. 2 H315: \geq 0,5%, Eye Dam. 1 H318: \geq 2%, Eye Irrit. 2 H319: \geq 0,5%

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

SODIUM CHLORATE

* Impurity.

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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor. Rinse your mouth with running water. In case of (spontaneous) vomiting, place the victim on the ground on the left side, with the head down (to keep the airways clear).

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

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

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

If medical advice is needed, have product container or label at hand. Symptomatic treatment.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING MEDIA

Water spray, alcohol resistant foam and carbon dioxide (CO₂).

UNSUITABLE EXTINGUISHING MEDIA

Full jet water.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Overpressure can be created in containers exposed to fire with danger of explosion. Avoid breathing combustion products. The product, if involved in large quantities in a fire, can considerably aggravate it. Energetic oxidant. In contact with combustible substances it can cause a fire. See also section 10.

If involved in a fire, the following are produced: nitrogen oxides, hydrochloric acid, chlorine.

5.3. Advice for firefighters

GENERAL INFORMATION

Cool the containers with jets of water to avoid product decomposition and the development of substances potentially hazardous to health. Always wear full fire protection equipment. Collect the extinguishing water which must not be discharged into the sewers. Dispose of the contaminated water used for extinguishing and the residue of the fire according to current regulations.

EQUIPMENT

Normal clothing for firefighting, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and fire brigade boots (HO A29 or A30).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Send away individuals who are not suitably equipped. 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. Use breathing equipment if powders are released into the air.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water. Avoid the formation of powder and dispersion of the product in the air.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. Make sure the leakage site is well aired. It may be advisable to wash with water any surfaces contaminated with traces of dust, without contaminating waste water.

6.4. Reference to other sections

Notify the competent authorities if the product has reached waterways or if it has contaminated the ground or vegetation.

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. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not mix with other products. Do not mix with other pool products. Do not add water to the product. Add the product to the water.

7.2. Conditions for safe storage, including any incompatibilities

SECTION 7. Handling and storage ... / >>

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details. Keep the label on the containers.

Storage class TRGS 510 (Germany): 5.1B

7.3. Specific end use(s)

See section 1.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
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
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
	TLV-ACGIH	ACGIH 2021

SODIUM HYPOCHLORITE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH			0,5		1	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00021	mg/l
Normal value in marine water	0,00004	mg/l

Normal value of STP microorganisms	2	
Normal value for the food chain (secondary poisoning)	4,69	mg/l
	11,1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral				0,26				
				mg/kg bw/d				
Inhalation	3,1			1,55	3,1	3,1		1,55
	mg/m3			mg/m3	mg/m3	mg/m3		mg/m3

SODIUM HYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP			2		
VLEP	FRA	2				
GVI/KGVI	HRV			2		
NDS/NDSch	POL	0,5		1		
WEL	GBR			2		
TLV-ACGIH				2 (C)		

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation			1				1	
			mg/m3				mg/m3	

Legend:

SECTION 8. Exposure controls/personal protection ... / >>

(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.

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.

Provide an emergency shower with face and eye wash station.

Provide a good standard of general ventilation (3 to 5 air changes per hour - dilution efficiency: 30%)

In case of formation of dusts / mists / aerosols: provide local aspiration at the emission points (Dilution efficiency: 90%).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

Suitable gloves (protection factor 6, breakthrough time > 480 minutes)

material (thickness, mm): nitrile (0.35 mm).

SKIN PROTECTION

Wear category I 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).

RESPIRATORY PROTECTION

We recommend the use of respirators or, for short-term work, of combined filters A2-P2. Combined filter device (DIN EN 141).

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellow	Method:visual
Odour	typical of chlorine	Method:organoleptic
Odour threshold	Not determined	
Melting point / freezing point	-20 °C	Method:Regulation (EC) N. 440/2008, Annex, A.1
Initial boiling point	< 100 °C	Method:Regulation (EC) n. 440/2008, Annex, A.2
Boiling range	> Not determined	
Flammability	not applicable	Reason for missing data:liquid product
Lower explosive limit	Not applicable	Reason for missing data:Not explosive
Upper explosive limit	Not applicable	Reason for missing data:Not explosive
Flash point	Not applicable	Reason for missing data:not inflammable
Auto-ignition temperature	Not applicable	Reason for missing data:not inflammable
Decomposition temperature	> 111 °C	
pH	12,5-13,5	Method:ISO 4316 Temperature: 20 °C
Kinematic viscosity	Not determined	
Solubility	soluble in water	Method:Regulation (EC) N. 440/2008, Annex A.6 Temperature: 25 °C
Partition coefficient: n-octanol/water	Not determined	
Vapour pressure	Not determined	
Density and/or relative density	1,15-1,3	Method:Regulation (EC) N. 440/2008, Annex A.3 Temperature: 20 °C
Relative vapour density	Not determined	
Particle characteristics	Not applicable	

SECTION 9. Physical and chemical properties ... / >>

9.2. Other information

No further information available.

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Evaporation rate	Not determined
Explosive properties	not explosive
Oxidising properties	oxidant

SECTION 10. Stability and reactivity

10.1. Reactivity

It can be corrosive to metals.
Reacts with acids.

SODIUM HYPOCHLORITE
Reacts with: acids,metals.

10.2. Chemical stability

Stable under recommended storage and handling conditions. Please refer to section 7 of the SDS.

SODIUM HYPOCHLORITE
Is stable up to 111 °C.

10.3. Possibility of hazardous reactions

In the presence of acids it develops toxic gases (Chlorine)
In the presence of metals.
In the presence of combustible materials.

SODIUM HYPOCHLORITE
On contact with: strong acids.Forms: chlorine.
Develops hydrogen on contact with: metals.
Reacts violently with: amines,ammonia,reducing agents,organic substances.
May react violently with: hydrogen peroxide,oxidising agents.

SODIUM HYDROXIDE
Develops hydrogen on contact with: metals.Reacts violently with: acids,peroxides,oxidising substances.

10.4. Conditions to avoid

Humidity.
Keep away from heat sources.
Avoid direct sunlight.

SODIUM HYPOCHLORITE
Avoid exposure to: light.

SODIUM HYDROXIDE
Avoid exposure to: air,moisture,sources of heat.

10.5. Incompatible materials

Concentrated acids.
Amines
Metals and combustible materials.

SODIUM HYPOCHLORITE
Corrodes: carbon steel,mild steel,aluminium,aluminium alloys,copper alloys,tin alloys,zinc alloys,brass,tin,zinc.
Compatible materials: hastelloy,PVC,polypropylene.
Keep away from: acids,oxidising agents,reducing agents,organic substances.

SODIUM HYDROXIDE
Incompatible with: strong acids,ammonia,zinc,lead,aluminium,water,flammable liquids.

SECTION 10. Stability and reactivity ... / >>

10.6. Hazardous decomposition products

Chlorine.

SODIUM HYPOCHLORITE

In decomposition develops: chlorine, sodium chlorate, oxygen.

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Dermal, inhalation.

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

See effects for substances.

Interactive effects

No interactive effects known.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

SODIUM HYPOCHLORITE

LD50 (Dermal):	> 10000 mg/kg Rabbit
LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation mists/powders):	> 10,5 mg/l/1h rat

SODIUM CHLORATE

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)

SKIN CORROSION / IRRITATION

Corrosive for the skin
Classification according to the experimental Ph value

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE

There are no known sensitizing effects.

Respiratory sensitization

Information not available

SECTION 11. Toxicological information ... / >>

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE
No mutagenic effects are known.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE
No known carcinogenic effects.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE
No reproductive toxic effects are known.

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

Does not meet the classification criteria for this hazard class

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

SECTION 11. Toxicological information ... / >>

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

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

SODIUM HYPOCHLORITE	
LC50 - for Fish	0,059 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	0,04 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46 mg/l/72h Gracilaria tenuistipitata
Chronic NOEC for Algae / Aquatic Plants	0,364 mg/l Algae fresh water

SODIUM HYDROXIDE	
LC50 - for Fish	189 mg/l/96h Leuciscus idus
EC50 - for Crustacea	100 mg/l/48h Daphnia

12.2. Persistence and degradability

SODIUM HYPOCHLORITE
Abiotic degradation:
photolysis in water $t_{1/2} = 12$ minutes (pH = 8), $t_{1/2} = 60$ minutes (pH = 5).
indirect photo-oxidation, air: $t_{1/2} = 115$ days - degradation products: chlorine.
hydrolysis, water: chemical degradation - degradation products: chlorides.
Biodegradability:
Not applicable for inorganic substances.

SODIUM HYPOCHLORITE	
Solubility in water	1000 - 10000 mg/l
Degradability: information not available	

SODIUM HYDROXIDE	
Solubility in water	> 10000 mg/l
Degradability: information not available	

12.3. Bioaccumulative potential

SODIUM HYPOCHLORITE
Not bioaccumulative.

SODIUM HYPOCHLORITE	
Partition coefficient: n-octanol/water	-3,42

No bioaccumulation effects are known.

12.4. Mobility in soil

SODIUM HYPOCHLORITE
Contact with the soil destroys the solution (oxidation) (EU, 2009).

SODIUM HYPOCHLORITE	
Partition coefficient: soil/water	1,12

High mobility expected in soil.

SECTION 12. Ecological information ... / >>

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.

No other adverse effects are known.

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.

European Waste Code:

Empty contaminated container: 15 01 10 * (packaging containing residues of dangerous substances or contaminated by these substances)

Empty container cleaned: 15 01 02 (plastic packaging)

Unused product: 16 03 03 * (inorganic waste, containing dangerous substances)

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 1791

14.2. UN proper shipping name

ADR / RID: HYPOCHLORITE SOLUTION
IMDG: HYPOCHLORITE SOLUTION
IATA: HYPOCHLORITE SOLUTION

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8



14.4. Packing group

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80 Special provision: -	Limited Quantities: 1 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo: Pass.: Special provision:	Maximum quantity: 30 L Maximum quantity: 1 L A3, A803	Packaging instructions: 855 Packaging instructions: 851

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: E1

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

Product	
Point	3
Contained substance	
Point	75

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 authorisation (Annex XIV REACH)
 None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
 None

Substances subject to the Rotterdam Convention:
 SODIUM CHLORATE - (CHLORATE)

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.

15.2. Chemical safety assessment

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

SECTION 15. Regulatory information ... / >>

SODIUM HYDROXIDE

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

SECTION 16. Other information

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

Ox. Sol. 1	Oxidising solid, category 1
Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H271	May cause fire or explosion; strong oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

Use descriptor system:

ERC 8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC 8e	Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)
LCS C	Consumer use
LCS PW	Widespread use by professional workers
PC 20	Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents
PC 37	Water treatment chemicals
PROC 19	Manual activities involving hand contact
PROC 8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC 8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC 9	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

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.

SECTION 16. Other information ... / >>

- 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.

Changes to previous review:

The following sections were modified:

01.