Safety Data Sheet dated 9/12/2022, version 5

SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1. Product identifier Mixture identification: Trade name: Trade code: M30.2.0100

UFI: VH50-A0RE-R00N-0X3Y 1.2. Relevant identified uses of the substance or mixture and uses advised against Recommended use: Industrial oven cleaner. PROFESSIONAL USE. Uses advised against: Do not use for purposes other than those listed. 1.3. Details of the supplier of the safety data sheet Company: Synt Chemical S.r.l. Via Armando Gagliani, 5 40069 Zola Predosa (BO) - ITALIA Tel. +39 051 752332 - Fax +39 051 754945 Competent person responsible for the safety data sheet: laboratorio@syntchemical.it 1.4. Emergency telephone number Poison centers (h24): Ospedale Niguarda Ca' Granda di Milano Tel. +39 02 66101029. Ospedale Pediatrico Bambino Gesù di Roma Tel. +39 06 68593726 Az. Osp. Univ. Di Foggia Tel. +39 800183459 Az. Osp. A. Cardarelli di Napoli Tel. +39 081-5453333 Policlinico Umberto I di Roma Tel. +39 06 49978000 Policlinico A. Gemelli di Roma Tel. +39 06 3054343 Az. Osp. Careggi U.O. Tossicologia Medica di Firenze Tel. +39 055 7947819 Centro Nazionale di Informazione Tossicologica di Pavia Tel. +39 0382 24444 Azienda Ospedaliera Papa Giovanni XXII di Bergamo Tel. +39 800883300 Azienda Ospedaliera Integrata Verona Tel. +39 800011858 Poison centres of Europe Member States: https://poisoncentres.echa.europa.eu/appointed-bodies Poison centres of WHO Member States: http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
Skin Corr. 1A, H314 Causes severe skin burns and eye damage.
Eye Dam. 1, H318 Causes serious eye damage.
STOT SE 3, H335 May cause respiratory irritation.
Adverse physicochemical, human health and environmental effects:
No other hazards
2.2. Label elements
Hazard pictograms:



Danger Hazard statements: H314 Causes severe skin burns and eye damage.



	H335 May cause respiratory irritation.
Precau	utionary statements:
	P260 Do not breathe dust.
	P280 Wear protective gloves and eye 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 or a doctor.
Specia	al Provisions:
	None
Conta	ins
	DISODIUM METASILICATE
	SODIUM HYDROXIDE
	SULFONIC ACIDS, C14-16 (EVEN NUMBERED)-ALKANE HYDROXY AND C14-16 (EVEN NUMBERED)-ALKENE, SODIUM SALTS
	TETRASODIUM ETHYLENE DIAMINE TETRAACETATE
Specia	al provisions according to Annex XVII of REACH and subsequent amendments:
	None
Ingred	dients (Reg. EC N.648/2004):
	15-30% phosphates.
	5-15% anionic surfactants.
	<5% EDTA.
2.3. 0	ther hazards
	No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%
Other	Hazards:
	No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	r	Classification
45 - 55 %	disodium metasilicate	Index number: CAS: EC: REACH No.:	014-010-00-8 6834-92-0 229-912-9 01-2119449811- 37	 2.16/1 Met. Corr. 1 H290 3.2/1B Skin Corr. 1B H314 3.8/3 STOT SE 3 H335
12 - 18 %	sodium hydroxide; caustic soda	Index number: CAS: EC: REACH No.:	011-002-00-6 1310-73-2 215-185-5 01-2119457892- 27	 2.16/1 Met. Corr. 1 H290 3.3/1 Eye Dam. 1 H318 3.2/1A Skin Corr. 1A H314 Specific Concentration Limits: 0,5% <= C < 2%: Skin Irrit. 2 H315 0,5% <= C < 2%: Eye Irrit. 2 H319 2% <= C < 5%: Skin Corr. 1B H314 C >= 5%: Skin Corr. 1A H314
3 - 6 %	Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts	CAS: EC: REACH No.:	68439-57-6 931-534-0 01-2119513401- 57	 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: 0% <= C < 5%: undefined C >= 5%: Skin Irrit. 2 H315 5% <= C < 38%: Eye Irrit. 2 H319 C >= 38%: Eye Dam. 1 H318



2 - 4 %	tetrasodium ethylene diamine tetraacetate	Index number: CAS: EC: REACH No.:	607-428-00-2 64-02-8 200-573-9 01-2119486762- 27	 3.1/4/Oral Acute Tox. 4 H302 3.3/1 Eye Dam. 1 H318 3.1/4/Inhal Acute Tox. 4 H332 3.9/2 STOT RE 2 H373 Acute Toxicity Estimate: ATE - Oral 500 mg/kg bw ATE - Inhalation (Dust/mist) 1,5 mg/l
0.6 - 0.9 %	Sulfuric acid, aluminum salt (3:2), tetradecahydrate	CAS: EC: REACH No.:	16828-12-9 233-135-0 01-2119531538- 36	3.3/1 Eye Dam. 1 H318

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

After contact with skin, wash immediately with soap and plenty of water.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

No data available for the mixture. See section 11 for symptoms and effects of the substances.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

Treat symptomatically.

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:
 - Water spray jets, CO2, dry chemical, foam.

Extinguishing media which must not be used for safety reasons:

Water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.



See protective measures under point 7 and 8.

- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
- Wash with plenty of water. 6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes, inhalation of vapours and mists.
 - Use localized ventilation system.
 - Don't use empty container before they have been cleaned.
 - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
 - See also section 8 for recommended protective equipment.
 - Advice on general occupational hygiene:
 - Contamined clothing should be changed before entering eating areas.
 - Do not eat or drink while working.
- 7.2. Conditions for safe storage, including any incompatibilities
 - Store in a cool and dry place. Keep away from direct sunlight.
 - Keep away from food, drink and feed.
 - Incompatible materials:
 - See subsection 10.5
 - Instructions as regards storage premises:
 - Adequately ventilated premises.
- 7.3. Specific end use(s)
 - See section 1.2.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - disodium metasilicate CAS: 6834-92-0
 - OEL Type: OEL TWA: 3 mg/m3 Notes: inhalable fraction
 - OEL Type: OEL TWA: 10 mg/m3 Notes: respirable fraction
 - sodium hydroxide; caustic soda CAS: 1310-73-2
 - OEL Type: TLV-ACGIH TWA: 2 mg/m3
 - OEL Type: ACGIH STEL: Ceiling 2 mg/m3
 - DNEL Exposure Limit Values
 - disodium metasilicate CAS: 6834-92-0

Worker Industry: 1.49 mg/kg - Consumer: 0.74 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

- Worker Industry: 6.22 mg/m3 Consumer: 1.55 mg/m3 Exposure: Human Inhalation Frequency: Long Term, systemic effects
- Consumer: 0.74 mg/m3 Exposure: Human Oral Frequency: Long Term, systemic effects
- sodium hydroxide; caustic soda CAS: 1310-73-2
 - Worker Industry: 1 mg/m3 Consumer: 1 mg/m3 Exposure: Human Inhalation Frequency: Long Term (repeated)
- Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts CAS: 68439-57-6
 - Worker Industry: 2158.33 mg/kg/day Consumer: 1295 mg/kg/day Exposure: Human Dermal Frequency: Long Term, systemic effects
 - Worker Industry: 152.22 mg/m3 Consumer: 45.04 mg/m3 Exposure: Human Inhalation Frequency: Long Term, systemic effects
- Consumer: 12.95 mg/kg/day Exposure: Human Oral Frequency: Long Term, systemic effects tetrasodium ethylene diamine tetraacetate CAS: 64-02-8



Worker Industry: 1.5 mg/m3 - Consumer: 0.6 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects Worker Industry: 3 mg/m3 - Consumer: 1.2 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects Consumer: 25 mg/kg bw/d - Exposure: Human Oral - Frequency: Long Term, systemic effects Sulfuric acid, aluminum salt (3:2), tetradecahydrate - CAS: 16828-12-9 Worker Industry: 476 mg/kg - Consumer: 233.5 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects Worker Industry: 10 mg/m3 - Consumer: 5 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects Consumer: 92.4 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects Worker Industry: 9.2 05 - Consumer: 4.6 05 - Exposure: Human Dermal - Frequency: Short Term, local effects Worker Industry: 10 mg/m3 - Consumer: 5 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects Worker Industry: 2.72 mg/kg - Consumer: 1.36 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects Worker Industry: 3 mg/m3 - Consumer: 1.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects Consumer: 54.4 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects Worker Industry: 9.2 05 - Consumer: 4.6 05 - Exposure: Human Dermal - Frequency: Long Term, local effects Worker Industry: 3 mg/m3 - Consumer: 1.5 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects **PNEC Exposure Limit Values** disodium metasilicate - CAS: 6834-92-0 Target: Intermittent releases - Value: 7.5 mg/l Target: Microorganisms in sewage treatments - Value: 1000 mg/l Target: Fresh Water - Value: 7.5 mg/l Target: Marine water - Value: 1 mg/l Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts - CAS: 68439-57-6 Target: Fresh Water - Value: 0.024 mg/l Target: Marine water - Value: 0.0024 mg/l Target: Marine water sediments - Value: 0.0767 mg/kg Target: Freshwater sediments - Value: 0.747 mg/kg Target: Soil (agricultural) - Value: 1.21 mg/kg Target: Microorganisms in sewage treatments - Value: 4 mg/l Target: Intermittent releases - Value: 0.0197 mg/l tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8 Target: Fresh Water - Value: 2.2 mg/l Target: Marine water - Value: 0.22 mg/l Target: Intermittent releases - Value: 1.2 mg/l Target: Soil (agricultural) - Value: 0.72 mg/kg Target: Microorganisms in sewage treatments - Value: 43 mg/l Sulfuric acid, aluminum salt (3:2), tetradecahydrate - CAS: 16828-12-9 Target: Microorganisms in sewage treatments - Value: 60.2 mg/l Target: Fresh Water - Value: 4.5 mg/l Target: Marine water - Value: 64 mg/l Target: Intermittent releases - Value: 30.11 mg/l Target: Freshwater sediments - Value: 10 mg/kg Target: Marine water sediments - Value: 31.4 mg/kg Target: Soil (agricultural) - Value: 58 mg/kg Target: Food chain - Value: 150 mg/kg 8.2. Exposure controls Eye protection: Wear safety goggles with side shields (EN 166). Protection for skin: Chemical protection clothing. Protection for hands:



Chemical resistant protective gloves (EN 374). Check the instructions regarding permeability and breakthrough time, indicated by the glove supplier. Consider specific local conditions of use, such as risk of splashing, injured skin of the operator, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber. Breakthrough time:> = 480 min. Material thickness:> = 0.7 mm

Recommended gloves for protection against splashes: Material: nitrile rubber. Breakthrough time:> = 30 min. Material thickness:> = 0.4 mm

Respiratory protection:

We recommend the use of a P-type filter mask (EN 149), or equivalent device. The class (1, 2 or 3) must be chosen in relation to the limit concentration of use.

Thermal Hazards:

None

Environmental exposure controls:

See section 7 and 13.

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties Properties Value Method: Notes Physical state: Solid Colour: White ------Odour: characteristic --___ Melting point/freezing point: Not Relevant Disodium metasilicate: 1089°C Boiling point or initial boiling not applicable ---point and boiling range: (solid) Flammability: Not applicable -----Lower and upper explosion limit: Not applicable ----Flash point: _ _ -not applicable (solid) -----Auto-ignition temperature: Not applicable Decomposition temperature: Not Relevant ---___ pH: not applicable _ _ --(solid) Kinematic viscosity: Not applicable ---___ Solubility in water: _ _ Disodium metasilicate: water ; 21d/100 soluble ml; 20 °C Solubility in oil: Not Relevant -----------Partition coefficient nnot applicable octanol/water (log value): Vapour pressure: Disodium metasilicate: < 0.01 hPa ; 20 not applicable --(solid) °C Density and/or relative density: not applicable ___ --(solid) --Relative vapour density: not applicable --(solid) Particle characteristics: --Particle size: Not applicable --

9.2. Other information

Properties	Value	Method:	Notes
Explosive properties:	not explosive based on the composition		
Evaporation rate:	not applicable (solid)		



Oxidizing properties: non-c basec comp	vidant on the sition	
--	----------------------------	--

SECTION 10: Stability and reactivity

10.1. Reactivity

In normal condition of use and storage (see section 7) dangerous reactions are not expected.

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

Exothermic reaction in contact with acids.

Aqueous solutions react with aluminum, zinc, tin, copper and their alloys to produce hydrogen which can form explosive mixtures with air.

10.4. Conditions to avoid

Avoid humidity.

Avoid contact with oxidizing agents, strong acids and basis.

10.5. Incompatible materials

Acids.

Metals.

Oxidizing agents.

10.6. Hazardous decomposition products

In case of fire or decomposition may spread gas and vapors potentially harmful for health as CO2, carbon monooxide and other irritating fumes.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information of the product: a) acute toxicity Not classified Based on available data, the classification criteria are not met b) skin corrosion/irritation The product is classified: Skin Corr. 1A H314 c) serious eye damage/irritation The product is classified: Eye Dam. 1 H318 d) respiratory or skin sensitisation Not classified Based on available data, the classification criteria are not met e) germ cell mutagenicity Not classified Based on available data, the classification criteria are not met f) carcinogenicity Not classified Based on available data, the classification criteria are not met g) reproductive toxicity Not classified Based on available data, the classification criteria are not met h) STOT-single exposure The product is classified: STOT SE 3 H335 i) STOT-repeated exposure Not classified Based on available data, the classification criteria are not met j) aspiration hazard Not classified Based on available data, the classification criteria are not met Toxicological information of the main substances found in the product: disodium metasilicate - CAS: 6834-92-0



```
a) acute toxicity:
       Test: LC50 - Route: Inhalation - Species: Rat > 2.06 mg/l - Duration: 4h
       Test: LD50 - Route: Oral - Species: Rat = 1152 mg/kg
       Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg
       Test: LD50 - Route: Oral - Species: Rat = 1349
b) skin corrosion/irritation:
       Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive - Duration: 4h - Source: OCSE 404 - Notes:
       Moment: 1; 24; 48; 72 hours
c) serious eye damage/irritation:
       Test: Eye Corrosive - Route: .EYES - Species: Rabbit Positive - Notes: Exposure time: 0.17 minutes.
       Moment: 30 minutes; 1,2;4 hours; daily (14 days)
d) respiratory or skin sensitisation:
       Test: Respiratory Sensitization Positive
       Test: Skin Sensitization - Route: Skin - Species: Mouse Negative - Source: OCSE 429
e) germ cell mutagenicity:
       Test: OECD 471 - Species: Generic Bacteria Negative - Notes: Bacteria (S. typhimurium and E. coli)
       Test: OECD 476 - Species: Mammalian cells Negative - Notes: Chinese hamster lung fibroblasts (V79)
       Test: In vivo mutation test - Species: Mouse Negative - Duration: 24h - Source: OECD 475
a) reproductive toxicity:
       Test: NOAEL - Route: Oral - Species: Mouse > 200 mg/kg bw/day - Duration: 18 days - Notes:
       Developmental toxicity
       Test: NOAEL - Route: Oral - Species: Mouse = 12.5 mg/kg bw/day - Duration: 18 days - Notes: Maternal
       toxicity
       Test: NOAEL - Route: Oral - Species: Rat female > 159 mg/kg bw/day - Notes: Effects on fertility
h) STOT-single exposure:
       Test: NOAEL - Route: Oral - Species: Rat > 227 mg/kg bw/day - Duration: 3 months - Source: OCSE 408
sodium hydroxide; caustic soda - CAS: 1310-73-2
b) skin corrosion/irritation:
       Notes: The powders are corrosive for the digestive mucous membranes, the eyes and the skin. Ingestion
       causes burns to the mouth, throat, oesophagus, nausea and blackish vomit, risk of throat edema and shock.
       In the most serious cases, perforation of the gastrointestinal tract and cardiovascular collapse.
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts - CAS:
68439-57-6
a) acute toxicity:
       Test: LC50 - Route: Inhalation - Species: Rat > 52 mg/l - Duration: 4h
       Test: LD50 - Route: Skin - Species: Rabbit > 6300 mg/kg
       Test: LD50 - Route: Oral - Species: Rat = 2079 mg/kg
b) skin corrosion/irritation:
       Test: Skin Irritant - Species: Rabbit Positive - Notes: OECD 404
c) serious eye damage/irritation:
       Test: Eye Corrosive - Species: Rabbit Positive - Notes: OECD 405
d) respiratory or skin sensitisation:
       Test: Skin Sensitization - Species: Guinea pig Negative
       Test: Skin Sensitization - Species: Man Negative
       Test: Respiratory Tract Irritant Positive - Notes: Repeated or prolonged exposure to dust can lead to chronic
       irritation of the respiratory tract.
e) germ cell mutagenicity:
       Test: Mutagenesis (Ames test) - Species: Generic Bacteria Negative - Notes: OECD 471
f) carcinogenicity:
       Test: Carcinogenicity - Route: Skin - Species: Mouse Negative
       Test: Carcinogenicity - Route: Oral - Species: Rat Negative
g) reproductive toxicity:
       Test: NOAEL - Species: Mouse = 2 mg/kg - Notes: OECD 414
tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

 a) acute toxicity

       ATE - Oral 500 mg/kg bw
       ATE - Inhalation (Dust/mist) 1,5 mg/l
       Test: LD50 - Route: Oral - Species: Rat = 1780 mg/kg
       Test: LC50 - Route: Inhalation of dust and mists. > 1 mg/l/4h - Notes: Test BASF
```



```
b) skin corrosion/irritation:
        Test: Skin Irritant - Species: Rabbit Negative - Notes: Test BASF (sol. 40%)
c) serious eye damage/irritation:
       Test: Eye Irritant - Species: Rabbit Positive
d) respiratory or skin sensitisation:
       Test: Skin Sensitization Negative
e) germ cell mutagenicity:
       Test: Mutagenesis (Ames test) Negative
f) carcinogenicity:
       Test: Carcinogenicity Negative
g) reproductive toxicity:
       Test: Reproductive Toxicity Negative
h) STOT-single exposure:
       Test: Acute toxicity Negative
i) STOT-repeated exposure:
       Test: Chronic toxicity - Route: Inhalation Positive
Sulfuric acid, aluminum salt (3:2), tetradecahydrate - CAS: 16828-12-9
a) acute toxicity:
       Test: LC50 - Route: Inhalation - Species: Rat > 5 mg/l - Duration: 4h
       Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg
       Test: NOAEL - Route: Oral - Species: Rat female = 562 mg/kg
c) serious eye damage/irritation:
       Test: Eve Corrosive Positive
d) respiratory or skin sensitisation:
       Test: Skin Sensitization Negative
g) reproductive toxicity:
       Test: NOAEL - Route: Oral - Species: Rat = 3225 mg/kg
Toxicological kinetics, metabolism and distribution information:
       Test: NOAEL - Route: Oral - Species: Rat = 323 mg/kg
```

11.2. Information on other hazards

Endocrine disrupting properties: No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

```
12.1. Toxicity
        Adopt good working practices, so that the product is not released into the environment.
       Not classified for environmental hazards
       Based on available data, the classification criteria are not met
disodium metasilicate - CAS: 6834-92-0
       a) Aquatic acute toxicity:
               Endpoint: EC50 - Species: Daphnia magna = 1700 mg/l - Duration h: 48 - Notes: Method EU C.2
               Endpoint: EbC50 - Species: Algae (Desmodesmus subspicatus) = 207 mg/l - Duration h: 72 - Notes: DIN
               38412-9
               Endpoint: LC50 - Species: Fish (Danio rerio) = 210 mg/l - Duration h: 96 - Notes: ISO 7346-1
sodium hydroxide; caustic soda - CAS: 1310-73-2
        a) Aquatic acute toxicity:
               Endpoint: EC50 - Species: Ceriodaphnia dubia = 40.4 mg/l - Duration h: 48
               Endpoint: LC50 - Species: Fish (Gambusia affinis) < 180 mg/l - Duration h: 48
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts - CAS: 68439-
57-6
       a) Aquatic acute toxicity:
               Endpoint: EC50 - Species: Daphnia = 4.53 mg/l - Duration h: 48 - Notes: OECD 202
               Endpoint: ErC50 - Species: Algae = 5.2 mg/l - Duration h: 72 - Notes: ISO 10253:2006
               Endpoint: LC50 - Species: Fish = 4.2 mg/l - Duration h: 96 - Notes: OECD 203
               Endpoint: EC50 - Species: Ceriodaphnia dubia = 4.53 mg/l - Duration h: 48 - Notes: ISO 10253
        b) Aquatic chronic toxicity:
```



Endpoint: EC10 - Species: Micro-organisms = 40 mg/l - Duration h: 3 - Notes: OECD 209 Endpoint: NOEC - Species: Daphnia = 6.3 mg/l - Duration h: 504 - Notes: OECD 211 Endpoint: NOECr - Species: Algae = 3.2 mg/l - Duration h: 72 - Notes: ISO 10253:2006 tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8 a) Aquatic acute toxicity: Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96 Endpoint: EC50 - Species: Daphnia magna > 140 mg/l - Duration h: 48 - Notes: DIN 38412 Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72 b) Aquatic chronic toxicity: Endpoint: NOEC - Species: Fish (Danio rerio) > 25 mg/l - Duration h: 840 - Notes: OECD 210 Endpoint: NOEC - Species: Daphnia magna > 25 mg/l - Duration h: 504 - Notes: OECD 211 Sulfuric acid, aluminum salt (3:2), tetradecahydrate - CAS: 16828-12-9 a) Aquatic acute toxicity: Endpoint: EC50 - Species: Algae = 24 mg/l - Duration h: 72 Endpoint: NOEC - Species: Algae = 1.7 mg/l - Duration h: 72 Endpoint: EC50 - Species: Daphnia > 90 mg/l - Duration h: 48 Endpoint: LC50 - Species: Fish > 562 mg/l - Duration h: 96 12.2. Persistence and degradability disodium metasilicate - CAS: 6834-92-0 Notes: The soluble inorganic silicates depolymerize rapidly in molecular species indistinguishable from natural silicas dissolved. They combine to ions Ca, Mg, Fe, Al and others to form insoluble compounds similar to the constituents of natural soils. sodium hydroxide; caustic soda - CAS: 1310-73-2 Biodegradability: Abiotic degradation - Notes: In water it hydrolyzes instantly with an increase in pH, in the air it is neutralized by atmospheric carbon dioxide. Notes: Not applicable to inorganic substances. Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts - CAS: 68439-57-6 Biodegradability: Readily biodegradable - Test: OECD 306 - Duration h: 28 days - %: 92 Biodegradability: Readily biodegradable - Test: CO2 production - Duration h: 28 days - %: 80 - Notes: OECD 301B tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8 Biodegradability: Not readily biodegradable 12.3. Bioaccumulative potential disodium metasilicate - CAS: 6834-92-0 Not bioaccumulative sodium hydroxide; caustic soda - CAS: 1310-73-2 Bioaccumulation potential is not expected. Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts - CAS: 68439-57-6 Low bioaccumulative - Test: Log Pow -1.3 Low bioaccumulative - Test: BCF - Bioconcentrantion factor 70.8 tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8 Not bioaccumulative Sulfuric acid, aluminum salt (3:2), tetradecahydrate - CAS: 16828-12-9 Not bioaccumulative 12.4. Mobility in soil sodium hydroxide; caustic soda - CAS: 1310-73-2 Very high mobility potential. tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8 Absorption to the solid phase of the soil is not expected. 12.5. Results of PBT and vPvB assessment vPvB Substances: None - PBT Substances: None 12.6. Endocrine disrupting properties No endocrine disruptor substances present in concentration >= 0.1%12.7. Other adverse effects

None





SECTION 13: Disposal considerations

13.1. Waste treatment methods Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number			
ADR-UN Number:	3262		
IATA-UN Number:	3262		
IMDG-UN Number:	3262		
14.2. UN proper shipping name			
ADR-Shipping Name:	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (DISODIUM METASILICATE, sodium hydroxide)		
IATA-Shipping Name:	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (DISODIUM METASILICATE, sodium hydroxide)		
IMDG-Shipping Name:	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (DISODIUM METASILICATE, sodium hydroxide)		
14.3. Transport hazard class(es)			
ADR-Class:	8		
ADR - Hazard identification number:	88		
IATA-Class:	8		
IATA-Label:	8		
IMDG-Class:	8		
14.4. Packing group			
ADR-Packing Group:	I		
IATA-Packing group:	I		
IMDG-Packing group:	I		
14.5. Environmental hazards			
ADR-Enviromental Pollutant:	No		
IMDG-Marine pollutant:	No		
IMDG-EmS:	F-A , S-B		
14.6. Special precautions for user			
ADR-Subsidiary hazards:	-		
ADR-S.P.:	274		
ADR-Transport category (Tunnel restrie	ction code): 1 (E)		
IATA-Passenger Aircraft:	858		
IATA-Subsidiary hazards:	-		
IATA-Cargo Aircraft:	862		
IATA-S.P.:	A3 A803		
IATA-ERG:	8L		
IMDG-Subsidiary hazards:	-		
IMDG-Stowage and handling:	Category B		
IMDG-Segregation:	SG35		
14.7. Maritime transport in bulk according to IMO instruments			
Not applicable			

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values)



```
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
```

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: No restriction. Restrictions related to the substances contained: Restriction 75

Where applicable, refer to the following regulatory provisions : Directive 2012/18/EU (Seveso III) Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III): Seveso III category according to Annex 1, part 1 None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

disodium metasilicate

sodium hydroxide; caustic soda

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts tetrasodium ethylene diamine tetraacetate

SECTION 16: Other information

Full text of phrases referred to in Section 3: H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

- H335 May cause respiratory irritation.
- H318 Causes serious eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- 0 The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).
- H302 Harmful if swallowed.
- H332 Harmful if inhaled.
- H373 May cause damage to organs through prolonged or repeated exposure.



Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2

This safety data sheet has been completely updated in compliance to Regulation 2020/878. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Corr. 1A, H314	Calculation method
Eye Dam. 1, H318	Calculation method
STOT SE 3, H335	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECHA website: https://echa.europa.eu/home

 $\label{eq:IFA GESTIS website: https://limitvalue.ifa.dguv.de} IFA GESTIS website: https://limitvalue.ifa.dguv.de \label{eq:IFA GESTIS website: https://limitvalue.ifa.dguv.de} IFA GESTIS website: https://limitvalue.ifa.dguv.de \label{IFA GESTIS Https://limitvalue.ifa.dguv.de} IFA GESTIS website: https://limitvalue.ifa.dguv.de \labe$

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.



