

Safety Data Sheet

FLOW



Safety Data Sheet dated 23/1/2023, version 5.1

This version cancels and substitutes any previous version

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

1.1. Product identifier

Mixture identification:

Trade name: FLOW

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

Recommended use:

Professional Unblocker for Slow Running Drains

1.3. Details of the supplier of the safety data sheet

Company:

ERRECOM SPA

Via Industriale, 14

Corzano (BS) Italy

Tel. +39 030/9719096

Competent person responsible for the safety data sheet:

lab@errecom.it

1.4. Emergency telephone number

+39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.

Danger, Eye Dam. 1, Causes serious eye damage.

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.

Precautionary statements:

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.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Special Provisions:

None

Contains

sodium hydroxide

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Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration $\geq 0.1\%$

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
$\geq 25\%$ - $< 30\%$	sodium hydroxide	Index number: 011-002-00-6 CAS: 1310-73-2 EC: 215-185-5 REACH No.: 01-21194578 92-27-XXXX	2.16/1 Met. Corr. 1 H290 3.2/1A Skin Corr. 1A H314 3.3/1 Eye Dam. 1 H318 Specific Concentration Limits: $C \geq 5\%$: Skin Corr. 1A H314 $2\% \leq C < 5\%$: Skin Corr. 1B H314 $0,5\% \leq C < 2\%$: Skin Irrit. 2 H315 $0,5\% \leq C < 2\%$: Eye Irrit. 2 H319
$\geq 1\%$ - $< 2.5\%$	sodium silicate	CAS: 1344-09-8 EC: 215-687-4 REACH No.: 01-21194487 25-31-XXXX	3.2/2 Skin Irrit. 2 H315 3.3/2 Eye Irrit. 2 H319

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

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 ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

Call a doctor immediately. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person and if indicated by the doctor.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Inhalation:

Irritation of the respiratory tract.

Contact with skin / eyes:

Intense burns and penetrating ulcers in the skin.

Burns in the eyes. It can cause ulceration of the conjunctiva and the cornea.

Ingestion:

Damage to the tissue of the mouth, esophagus and stomach

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:

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray.

CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

High pressure water jet.

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

For non emergency personnel:

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

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.

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.

Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

- 7.2. Conditions for safe storage, including any incompatibilities
Avoid cooling below 15 ° C.
Keep container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.
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)
Information not available.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
sodium hydroxide - CAS: 1310-73-2
ACGIH - STEL: Ceiling 2 mg/m³ - Notes: URT, eye, and skin irr
sodium silicate - CAS: 1344-09-8
TLV - TWA: 2 mg/m³
- DNEL Exposure Limit Values
sodium hydroxide - CAS: 1310-73-2
Worker Professional: 1 mg/m³ - Consumer: 1 mg/m³ - Exposure: Human Inhalation -
Frequency: Long Term, local effects
sodium silicate - CAS: 1344-09-8
Worker Professional: 1.59 mg/kg - Consumer: 0.8 mg/kg - Exposure: Human Dermal -
Frequency: Long Term, systemic effects
Worker Professional: 5.61 mg/m³ - Consumer: 1.38 mg/m³ - Exposure: Human
Inhalation - Frequency: Long Term, systemic effects
Consumer: 0.8 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic
effects
- PNEC Exposure Limit Values
sodium silicate - CAS: 1344-09-8
Target: Microorganisms in sewage treatments - Value: 348 mg/L
Target: Oral - Value: 348 mg/kg
Target: Fresh Water - Value: 7.5 mg/L
Target: Marine water - Value: 1 mg/L
Target: Occasional emission - Value: 7.5 mg/L
- 8.2. Exposure controls
Eye protection:
Use close safety visors, don't use eye lens.
- Protection for skin:
Full protection suit.
- Protection for hands:
Suitable gloves type:
work gloves resistant to penetration (ref. standard EN 374).
Suitable material:
NBR (nitrile rubber).
Material thickness: 0.4 mm minimum.
Break through time : > 480 min
Take note of the information given by the producer concerning permeability and break
through times, and of special workplace conditions (mechanical strain, duration of contact).
- Respiratory protection:
Not needed for normal use.
- Thermal Hazards:
None

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Environmental exposure controls:
None
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:	Liquid	--	--
Colour:	Colourless	--	--
Odour:	characteristic	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	14	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	total	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	1.35 g/mL (+20°C/+68°F)	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information
No other relevant information

SECTION 10: Stability and reactivity

- 10.1. Reactivity
It may generate dangerous reactions (See subsections below)
- 10.2. Chemical stability
Stable under normal conditions
- 10.3. Possibility of hazardous reactions
Contact with strong acids can cause violent reactions and explosions.
Potential hazard for exothermic reactions.
- 10.4. Conditions to avoid
Store away from heat.
- 10.5. Incompatible materials

- Acids, halogenated organic substances, in particular trichlorethylene, aluminum and other highly reactive metals, aldehydes, anhydrides, nitriles, in particular acrylonitrile, alcohols and phenols, cyanidines, hydroquinones, nitro-organic compounds, phosphorus, tetrahydrofuran.
- 10.6. Hazardous decomposition products
Sodium Oxides.
hydrogen

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
Not classified
Based on available data, the classification criteria are not met
- 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:

- sodium hydroxide - CAS: 1310-73-2
- b) skin corrosion/irritation:
Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive
- c) serious eye damage/irritation:
Test: Eye Irritant - Species: Rabbit Positive - Source: OECD TG 405
- d) respiratory or skin sensitisation:
Test: Respiratory Sensitization - Route: In vitro Negative - Notes: ECHA
Test: Skin Sensitization - Route: In vitro Negative - Notes: ECHA
- e) germ cell mutagenicity:
Test: Ames test - Species: Salmonella Typhimurium Negative
- sodium silicate - CAS: 1344-09-8
- a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat > 2.06 g/m3
Test: LD50 - Route: Oral - Species: Rat = 3400 mg/kg
Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg

- Test: NOAEL - Route: Oral - Species: Rat = 159 mg/kg
- b) skin corrosion/irritation:
Test: Respiratory Tract Irritant - Route: Inhalation Positive
Test: Irritating by ingestion - Route: Oral Positive
Test: Skin Irritant - Route: Skin Positive
- c) serious eye damage/irritation:
Test: Eye Corrosive - Route: Eyes Positive
- d) respiratory or skin sensitisation:
Test: Skin Sensitization - Route: Skin Negative
Test: Respiratory Sensitization - Route: Inhalation Negative

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

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

sodium hydroxide

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 189 mg/L - Duration h: 48

Endpoint: EC0 - Species: Daphnia = 40.4 mg/L - Duration h: 48 - Notes: Species:
Ceriodaphnia dubia

Endpoint: LC50 - Species: Fish 125 mg/L - Duration h: 96 - Notes: Species: Gambusia
affinis

Endpoint: LC50 - Species: Fish 45.4 mg/L - Duration h: 96 - Notes: Species
Oncorhynchus mykiss

c) Bacteria toxicity:

Endpoint: EC50 - Species: Bacteria 22 mg/L - Duration h: 0.25 - Notes: Species:
Photobacterium phosphoreum

sodium silicate

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae > 345.4 mg/L - Duration h: 72 - Notes: Species:
Scenedesmus subspicatus

Endpoint: EC0 - Species: Daphnia = 1700 mg/L - Duration h: 48 - Notes: Species:
Daphnia magna

Endpoint: LC50 - Species: Fish = 1108 mg/L - Duration h: 96 - Notes: Species:
Brachydanio rerio

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

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 $\geq 0.1\%$

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: 1824
IATA-UN Number: 1824
IMDG-UN Number: 1824

14.2. UN proper shipping name

ADR-Shipping Name: SODIUM HYDROXIDE SOLUTION
IATA-Shipping Name: SODIUM HYDROXIDE SOLUTION
IMDG-Shipping Name: SODIUM HYDROXIDE SOLUTION

14.3. Transport hazard class(es)

ADR-Class: 8
ADR - Hazard identification number: 80
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8

14.4. Packing group

ADR-Packing Group: II
IATA-Packing group: II
IMDG-Packing group: II

14.5. Environmental hazards

ADR-Environmental Pollutant: No
IMDG-Marine pollutant: No
IMDG-EmS: F-A , S-B

14.6. Special precautions for user

ADR-Subsidiary hazards: -
ADR-S.P.: -
ADR-Transport category (Tunnel restriction code): 2 (E)
IATA-Passenger Aircraft: 851
IATA-Subsidiary hazards: -
IATA-Cargo Aircraft: 855
IATA-S.P.: A3 A803
IATA-ERG: 8L
IMDG-Subsidiary hazards: -
IMDG-Stowage and handling: Category A
IMDG-Segregation: SG35 SGG18

14.7. Maritime transport in bulk according to IMO instruments

N.A.

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:

Restriction 3

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.

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.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
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

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Eye Irrit. 2	3.3/2	Eye irritation, Category 2
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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

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

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

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.