

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 and 2015/830



Revision date : 21/11/2016

Version 16.1

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

1.1 Product identifier

Catalogue No **937**
Product name **Indicator SO2**
REACH Registration Number This product is a mixture. REACH Registration Number see section 3.

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

Identified uses Reagent for analysis

1.3 Details of the supplier of the safety data sheet

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SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (Regulation (CE) N° 1272/2008)

This mixture is not classified as dangerous according to European Union Legislation

2.2 Label elements

Labeling (Regulation (CE) N° 1272/2008)

Not a dangerous mixture according to GHS.

2.3 Other hazards

None known.

SECTION 3. Composition/informations on ingredients

Chemical nature: Aqueous solution / mixture

3.1 Substance: not applicable

3.2 Mixture:

Non-hazardous component (Regulation (CE) N° 1272/2008)

Chemical name (Concentration) : potato starch ($\approx 0,5\%$)

Other component not classified as hazardous as a consequence of the substances concentration (Regulation (CE) N° 1272/2008)

Chemical name (Concentration)

Sodium hydroxyde concentration ($\geq 0,35 - \leq 0,4\%$)

CAS N°	EC N°	REACH N°	Classification
1310-73-2	215-185-5	01-2119457892-27-XXXX	Skin corrosion, Category 1A, H314 Corrosive to metals, Category 1, H290

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

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air.

After skin contact: wash off with plenty of water. Immediately remove contaminated clothing.

After eye contact: rinse out with plenty of water with the eyelid wide open. Call in ophthalmologist if necessary.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell

4.2 Most important symptoms and effects, both acute and delayed

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Possible irritant effect

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, foam, dry powder or carbon dioxide (CO₂),

Unsuitable extinguishing media

For this mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

5.3 Advice for firefighters

Special protective equipment for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

Do not empty into drains.

6.3 Method and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent and neutralizing material (e.g. Trivorex® (PREVOR)). Dispose of properly.

Clean up affected area.

6.4 Additional information

Clear spills immediately.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with mixture.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : no aluminium, tin, or zinc containers.

Storage conditions:

Storage temperature +15 - +25°C

Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

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SECTION 8. Exposure controls / personal protection

8.1 Control parameters

Components with occupational exposure limit values

Sodium hydroxyde (1310-73-2)

Base	Value	Threshold limit values	Comment
Limit value for occupational exposure (VLEP France)	Time Weighted Average Threshold Limit Value	2 mg/m ³	Indicative limit values
Derived No Effect Level (DNEL)			
Worker DNEL, long term		Local effects	inhalation 1 mg/m ³
Consumer DNEL, long term		Local effects	inhalation 1 mg/m ³

Recommended control procedures

Measuring methods of workplace atmosphere must meet DIN EN 482 and DIN EN 689 standards.

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Eye/face protection

Tightly fitting safety glasses

Hand protection

full contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm
Break through time: > 480 min

Splash contact:

Glove material: Nitrile rubber
Glove thickness: 0.11 mm
Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374.

Other protective equipment

Wear alkali resistant protective clothing, provided with a CE marking.

Respiratory protection

Required when vapors/aerosols are generated.

Recommended filter type: P 2.

The company has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented

Environmental exposure controls

Do not empty into drains.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid.
Color	colorless.
Odor	odorless.
Odor Threshold	not applicable.

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pH	about 12.6 at 20 °C
Melting point	no information available.
Boiling point/boiling range	no information available.
Flash point	no information available.
Evaporation rate	no information available.
Flammability (solid, gas)	not applicable
Lower explosion limit	no information available.
Upper explosion limit	no information available.
Vapor pressure	no information available.
Relative vapor density	no information available.
Relative density	no information available.
Water solubility	at 20°C soluble
Partition coefficient: n- octanol/water	no information available.
Auto-ignition temperature	no information available.
Decomposition temperature	no information available.
Viscosity, dynamic	no information available.
Explosive properties	not classified as explosive.
Oxidizing properties	none

9.2 Other data

Bulk density	no information available.
Refraction index	no information available.
Dissociation constant	no information available.
Surface tension	no information available.
Henry constant	no information available.
Corrosion	may be corrosive to metals.

SECTION 10. Stability and reactivity

10.1 Reactivity

See section 10.3

10.2 Chemical stability

The product is chemically stable for 6 months under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with:

Nitriles, ammonium compounds, cyanides, magnesium, organic nitro compounds, organic combustible substances, phenols, powdered alkaline earth metals, acids.

10.4 Conditions to avoid

No information available

10.5 Incompatible materials

Aluminum, zinc, tin, brass.

10.6 Hazardous decomposition products

Carbon monoxide (CO), carbon dioxide (CO₂), sodium oxides.

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Mixture

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<i>Acute oral toxicity</i>	No information available.
<i>Acute inhalation toxicity</i>	No information available.
<i>Acute dermal toxicity</i>	No information available.
<i>Skin irritation</i>	Possible damages: slight irritation
<i>Eye irritation</i>	Possible damages: slight irritation
<i>Sensitization</i>	No information available.
<i>Specific target organ toxicity - single exposure</i>	No information available.
<i>Specific target organ toxicity - repeated exposure</i>	No information available.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)	
<i>Germ cell mutagenicity</i>	No information available.
<i>Carcinogenicity</i>	No information available.
<i>Reproductive toxicity</i>	No information available.
<i>Teratogenicity</i>	No information available.
<i>Aspiration hazards</i>	No information available.

11.2 Further information

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately. Handle in accordance with good industrial hygiene and safety practice.

Components

Sodium hydroxide

Acute oral toxicity

LD50 rat: 1350 mg/kg (IUCLID)

Skin irritation

Rabbit: Result: Causes burns. (RTECS)

Eye irritation

Rabbit: Result: Causes burns. (RTECS)

Germ cell mutagenicity

Genotoxicity in vitro

Mutagenicity (mammal cell test): micronucleus. Result: negative (Lit.)

Ames test

Result: negative (IUCLID)

Teratogenicity

Did not show teratogenic effects in animal experiments. (Lit.)

SECTION 12. Ecological information

Mixture

12.1 Ecotoxicity

Acute (short-term) fish toxicity

LC50 - EC50 - species - exposure time

No data available.

Chronic (long-term) fish toxicity

LC50 - EC50 - species - exposure time

No data available.

Acute (short-term) daphnia toxicity

LC50 - EC50 - species - exposure time

No data available.

Chronic (long-term) daphnia toxicity

LC50 - EC50 - species - exposure time

No data available.

Acute (short-term) algae toxicity

LC50 - EC50 - species - exposure time

No data available.

Chronic (long-term) algae toxicity

LC50 - EC50 - species - exposure time

No data available.

12.2 Persistence and degradability – Biodegradability

No data available.

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12.3 Bioaccumulative potential	No data available.
12.4 Mobility in soil	No data available.
12.5 Results of PBT assessment	No data available.
12.6 Other adverse effects	

Discharge into the environment must be avoided.

Components

Sodium hydroxide

Toxicity to fish

LC50 *Oncorhynchus mykiss* (rainbow trout): 45.4 mg/l; 96 h (50% solution) (IUCRID)

Toxicity to daphnia and other aquatic invertebrates

EC50 *Daphnia magna* (Water flea): 76 mg/l; 24 h (50% solution) (External SDS)

Toxicity to bacteria

CE50 *Photobacterium phosphoreum*: 22 mg/l; 15 min (External SDS).

Biodegradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulation

Bioaccumulation is unlikely.

SECTION 13. Disposal considerations

Waste treatment methods

Waste must be disposed of in accordance with the Directive on waste 2008/98/EC and with local and national regulations. Leave chemicals in original containers. No mixing with other waste. Treat uncleaned containers like the product itself.

SECTION 14. Transport information

Land transport (ADR / RID)

14.1 - 14.6

The mixture is not subject to regulations for road transport.

Air transport (IATA)

14.1 - 14.6

The mixture is not subject to regulations for air transport.

Sea transport (IMDG)

14.1 - 14.6

The mixture is not subject to regulations for sea transport.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15. Regulatory information

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

UE regulations

Aquatic Class risk (WGK)

WGK1 (slightly hazardous for water).

Occupational restrictions

Take note of Directive 94/33/EC on the protection of young people at work and Directive 92/85/EEC on the safety and health at work of pregnant women

Substances of very high concern (SVHC)

This product does not contain substances of very high concern above the respective regulatory limit (> 0.1% (w/w) Regulation (EC) N° 1907/2006 (REACH), Article 57

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SECTION 16. Other informations

Full text of the H-Statements mentioned in sections 2-3

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

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Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.