

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

1.1. Product identifier

Product form : Substance
 Trade name : Sodium monoxide
 EC no : 215-208-9
 CAS No : 1313-59-3
 Formula : Na₂O

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Synthesis intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

MSSA S.A.S.
 111, Rue de la Volta - Pomblière
 73600 SAINT-MARCEL - France
 T +33 (0)4 79 24 70 70 - F +33 (0)4 79 24 70 50
fds-msds@metauxspeciaux.fr

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0844 892 0111	UK only, Monday to Friday, 08.00 to 18.00 hours

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Corr. 1A H314

Full text of classification categories and H statements : see section 16

Adverse physicochemical, human health and environmental effects : Causes severe skin burns and eye damage. Reacts violently with water.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
 Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage
 Precautionary statements (CLP) : P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
 P304+P340 - IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
 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 doctor/physician
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water
 EUH-statements : EUH014 - Reacts violently with water

2.3. Other hazards

Other hazards not contributing to the : None, to our knowledge.

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classification

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : Disodium oxide
CAS No : 1313-59-3
EC no : 215-208-9

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air. Call a doctor.
First-aid measures after skin contact : Remove all contaminated clothing and footwear. Rinse with plenty of water. Get immediate medical advice/attention.
First-aid measures after eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Consult an eye specialist immediately.
First-aid measures after ingestion : If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink. Never attempt to induce vomiting. Call a physician immediately.

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

Symptoms/injuries after inhalation : Irritation to respiratory tract.
Symptoms/injuries after skin contact : Burns.
Symptoms/injuries after eye contact : Burns.
Symptoms/injuries after ingestion : Corrosion or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Dry sand.
Unsuitable extinguishing media : Water. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : On combustion or on thermal decomposition (pyrolysis) releases : Carbon oxides (CO, CO₂).

5.3. Advice for firefighters

Firefighting instructions : Clear the danger area. Be careful to flashback of fire.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes. Avoid contact of substance with water. Do not attempt to take action without suitable protective equipment. Clear the danger area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not allow product to spread into the environment.

6.3. Methods and material for containment and cleaning up

For containment : Sweep up or vacuum up the product. Avoid creating or spreading dust. Gather the product and place it in a spare container that has been suitably labelled.
Other information : Dispose of solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid creating or spreading dust. Avoid any direct contact with the product. Avoid contact with skin and eyes. Avoid contact of substance with water.
- Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep the container hermetically sealed. Store in a cool, well-ventilated place. Keep container dry.
- Incompatible materials : Water. Acids. Organic materials.
- Packaging materials : Original packaging.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Extraction to remove dust at its source. Safety shower. Eye fountain. Monitor the atmosphere at regular intervals.
- Hand protection : Protective gloves. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374. Breakthrough time : refer to the recommendations of the supplier
- Eye protection : Goggles + face shield
- Skin and body protection : Protective clothing
- Respiratory protection : In the event of insufficient ventilation: Respiratory protective device with a particle filter (P2 / P3)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Pellet.
- Colour : whitish.
- Odour : odourless.
- Odour threshold : No data available
- pH : Not applicable
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : 920 °C
- Freezing point : No data available
- Boiling point : 1600 °C
- Flash point : Not applicable
- Auto-ignition temperature : Not applicable
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Density : 1400 kg/m³
- Solubility : Water: Reacts violently with water
- Log Pow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Exothermic reaction with water with hydrogen release.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Reacts violently with water.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Water. Moisture. Acids. Organic materials.

10.6. Hazardous decomposition products

On contact with water : Soda.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Serious eye damage/eye irritation, Category 1
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Technical impossibility to obtain the data)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation the alkalinity of the product may represent a danger to aquatic organisms.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Sodium monoxide (1313-59-3)

Bioaccumulative potential	Not bioaccumulable.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of in accordance with relevant local regulations. Incinerate at a licensed installation.
Additional information	: The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

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14.1. UN number

UN-No. (ADR)	: 1825
UN-No. (IMDG)	: 1825
UN-No. (IATA)	: 1825
UN-No. (ADN)	: 1825
UN-No. (RID)	: 1825

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: SODIUM MONOXIDE
Proper Shipping Name (IMDG)	: SODIUM MONOXIDE
Proper Shipping Name (IATA)	: Sodium monoxide
Proper Shipping Name (ADN)	: SODIUM MONOXIDE
Proper Shipping Name (RID)	: SODIUM MONOXIDE
Transport document description (ADR)	: UN 1825 SODIUM MONOXIDE, 8, II, (E)
Transport document description (IMDG)	: UN 1825 SODIUM MONOXIDE, 8, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 8
Hazard labels (ADR)	: 8



IMDG

Transport hazard class(es) (IMDG)	: 8
Danger labels (IMDG)	: 8



IATA

Transport hazard class(es) (IATA)	: 8
Hazard labels (IATA)	: 8



ADN

Transport hazard class(es) (ADN)	: 8
Danger labels (ADN)	: 8



RID

Transport hazard class(es) (RID)	: 8
Danger labels (RID)	: 8

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14.4. Packing group

Packing group (ADR)	: II
Packing group (IMDG)	: II
Packing group (IATA)	: II
Packing group (ADN)	: II
Packing group (RID)	: II

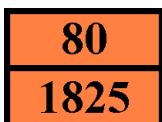
14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	: C6
Limited quantities (ADR)	: 1kg
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P002, IBC08
Special packing provisions (ADR)	: B4
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V11
Hazard identification number (Kemler No.)	: 80
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 2W

- Transport by sea

Limited quantities (IMDG)	: 1 kg
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P002
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B2, B4
Tank instructions (IMDG)	: T3
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
MFAG-No	: 157

- Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y844
PCA limited quantity max net quantity (IATA)	: 5kg
PCA packing instructions (IATA)	: 859

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PCA max net quantity (IATA) : 15kg
CAO packing instructions (IATA) : 863
CAO max net quantity (IATA) : 50kg
ERG code (IATA) : 8L

- Inland waterway transport

Classification code (ADN) : C6
Limited quantities (ADN) : 1 kg
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : C6
Limited quantities (RID) : 1kg
Excepted quantities (RID) : E2
Packing instructions (RID) : P002, IBC08
Special packing provisions (RID) : B4
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAN
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W11
Colis express (express parcels) (RID) : CE10
Hazard identification number (RID) : 80

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
Sodium monoxide is not on the REACH Candidate List
Sodium monoxide is not on the REACH Annex XIV List

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

This sheet was updated (refer to the date at the top of this page). SDS changed section(s): 2-14.

Data sources : RTECS (Registry of Toxic Effects of Chemical Substances). HSDB (Hazardous Substances Data Bank). Joint Research Center (JRC).

Other information : Safety data sheet established by : LISAM SERVICES - TELEGIS
17, Rue de la Couture F-60400 PASSEL
Safety Made Easy with www.lisam.com.

Full text of H- and EUH-statements:

Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H314	Causes severe skin burns and eye damage
EUH014	Reacts violently with water

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product