# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 06/03/2014 Version 1.2

## SECTION 1. Identification

### Product identifier

| | |
|---|---|
| Product number | 106549 |
| Product name | Sodium nitrite for analysis EMSURE® ACS,Reag. Ph Eur |
| CAS-No. | 7632-00-0 |

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

| | |
|---|---|
| Identified uses | Reagent for analysis |

### Details of the supplier of the safety data sheet

| | |
|---|---|
| Company | EMD Millipore Corporation \| 290 Concord Road, Billerica, MA 01821, United States of America \| General Inquiries: +1-978-715-4321 \| Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) |
| **Emergency telephone** | 800-424-9300 CHEMTREC (USA)<br>+1-703-527-3887 CHEMTREC (International)<br>24 Hours/day; 7 Days/week |

## SECTION 2. Hazards identification

### GHS Classification

Oxidizing solid, Category 3, H272
Acute toxicity, Category 3, Oral, H301
Acute aquatic toxicity, Category 1, H400

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

### GHS-Labeling

*Hazard pictograms*



*Signal Word*
Danger

*Hazard Statements*
H272 May intensify fire; oxidizer.
H301 Toxic if swallowed.
H400 Very toxic to aquatic life.

*Precautionary Statements*
P273 Avoid release to the environment.
P308 + P310 IF exposed or concerned: immediately call a POISON CENTER or doctor/ physician.

**OSHA Hazards**
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS and may deviate from the GHS information.

**Other hazards**
None known.

## SECTION 3. Composition/information on ingredients

| | | |
|---|---|---|
| Formula | $NaNO_2$ | $NNaO_2$ (Hill) |
| Molar mass | 69.00 g/mol | |

**Hazardous ingredients**
*Chemical Name ( Concentration)*
CAS-No.
*sodium nitrite ( >= 90 % - <= 100 % )*
7632-00-0
Exact percentages are being withheld as a trade secret.

## SECTION 4. First aid measures

**Description of first-aid measures**
*Inhalation*
After inhalation: fresh air.

*Skin contact*
After skin contact: wash off with plenty of water. Remove contaminated clothing.

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

*Ingestion*
If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**
irritant effects, depressed respiration, Cyanosis, Unconsciousness, narcosis, Nausea, Vomiting, collapse, Headache

**Indication of any immediate medical attention and special treatment needed**
Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

## SECTION 5. Fire-fighting measures

### Extinguishing media

*Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

*Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Not combustible.
Has a fire-promoting effect due to release of oxygen.
Ambient fire may liberate hazardous vapors.
Fire may cause evolution of:
nitrogen oxides

### Advice for firefighters

*Special protective equipment for fire-fighters*

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*

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

### Environmental precautions

Do not empty into drains.

### Methods 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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Away from combustible substances. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage temperature: no restrictions.

## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

Contains no substances with occupational exposure limit values.

### Engineering measures

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

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

*Hygiene measures*

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

*Eye/face protection*

Safety glasses

*Hand protection*

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

*Other protective equipment:*

protective clothing

*Respiratory protection*

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## SECTION 9. Physical and chemical properties

| | |
|---|---|
| Physical state | solid |
| Color | white |
| Odor | odorless |
| Odor Threshold | not applicable |
| pH | 9<br>at 100 g/l<br>68 °F ( 20 °C) |
| Melting point | 280 °C<br>(decomposition) |
| Boiling point | No information available. |
| Flash point | not applicable |

| | |
|---|---|
| Evaporation rate | No information available. |
| Flammability (solid, gas) | No information available. |
| Lower explosion limit | No information available. |
| Upper explosion limit | No information available. |
| Vapor pressure | No information available. |
| Relative vapor density | No information available. |
| Density | 2.1 g/cm³<br>at 68 °F ( 20 °C) |
| Relative density | No information available. |
| Water solubility | 820 g/l<br>at 68 °F ( 20 °C) |
| Partition coefficient: n-octanol/water | log Pow: -3.7<br>OECD Test Guideline 107<br>Bioaccumulation is not expected. |
| Autoignition temperature | No information available. |
| Decomposition temperature | > 608 °F ( > 320 °C) |
| Viscosity, dynamic | No information available. |
| Explosive properties | Not classified as explosive. |
| Oxidizing properties | The substance or mixture is classified as oxidizing with the category 3. |
| Bulk density | 1,200 kg/m³ |

## SECTION 10. Stability and reactivity

### Reactivity

See below

### Chemical stability

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

### Possibility of hazardous reactions

Risk of explosion with:

combustible substances, Aluminum, Sulfides, Cyanides, potassium cyanide, urea, hydrazine and derivatives, oxidizable substances, unsaturated hydrocarbons, sodium amide, phenol, Ethylene oxide, strong reducing agents, Ammonium salts, amides, hydrochloric acid, Potassium hexacyanoferrate (II)

A risk of explosion and/or of toxic gas formation exists with the folllowing substances:

Acids

with, Amines, Release of:, Nitrosamine

Risk of ignition or formation of inflammable gases or vapors with:

butadiene

Exothermic reaction with:

Ethylene oxide

**Conditions to avoid**

Strong heating (decomposition).

**Incompatible materials**

no information available

**Hazardous decomposition products**

in the event of fire: See section 5.

## SECTION 11. Toxicological information

**Information on toxicological effects**

*Likely route of exposure*

Eye contact, Skin contact, Ingestion

*Acute oral toxicity*

LDLO human: 71 mg/kg (RTECS)

LD50 rat: 85 mg/kg (IUCLID)

absorption

*Acute inhalation toxicity*

LC50 rat: 5.5 mg/l; 4 h (RTECS)

Symptoms: slight mucosal irritations, After a latency period:, Lung edema

*Skin irritation*

rabbit
Result: No irritation
OECD Test Guideline 404

*Eye irritation*

rabbit
Result: slight irritation
OECD Test Guideline 405

*Carcinogenicity*

Did not show carcinogenic effects in animal experiments. (IUCLID)

*Reproductive toxicity*

No impairment of reproductive performance in animal experiments. (IUCLID)

*Teratogenicity*

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

*Specific target organ systemic toxicity - single exposure*
The substance or mixture is not classified as specific target organ toxicant, single exposure.

*Specific target organ systemic toxicity - repeated exposure*
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

*Aspiration hazard*
Regarding the available data the classification criteria are not fulfilled.

**Carcinogenicity**

| | |
|---|---|
| IARC | No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| OSHA | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| NTP | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| ACGIH | No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |

**Further information**
After absorption:
Nausea, narcosis, Cyanosis
After absorption of large quantities:
Headache, Vomiting, Unconsciousness, drop in blood pressure, depressed respiration, collapse, Methaemoglobinemia
The following applies to nitrites in general: risk of methemoglobin formation. Possibility of formation of nitrosamines with secondary and in given circumstances even tertiary amines. Nitrosamines have shown themselves to be carcinogenic in animal experiments.
Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12. Ecological information

**Ecotoxicity**

*Toxicity to fish*
LC50 Oncorhynchus mykiss (rainbow trout): 0.09 - 0.13 mg/l; 96 h (ECOTOX Database)

*Toxicity to daphnia and other aquatic invertebrates*
EC5 E.sulcatum: 2.8 mg/l; 72 h (IUCLID)

EC50 Daphnia magna (Water flea): 12.5 - 100 mg/l; 48 h
OECD Test Guideline 202

*Toxicity to bacteria*
EC5 Pseudomonas putida: 123 mg/l; 16 h
OECD Test Guideline 209

**Persistence and degradability**

*Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

**Bioaccumulative potential**

*Partition coefficient: n-octanol/water*
log Pow: -3.7
OECD Test Guideline 107
Bioaccumulation is not expected.

**Mobility in soil**

No information available.

*Additional ecological information*
Discharge into the environment must be avoided.

## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

## SECTION 14. Transport information

**Land transport (DOT)**

| | |
|---|---|
| **UN number** | UN 1500 |
| **Proper shipping name** | SODIUM NITRITE |
| **Class** | 5.1 ( 6.1) |
| **Packing group** | III |
| **Environmentally hazardous** | -- |

**Air transport (IATA)**

| | |
|---|---|
| **UN number** | UN 1500 |
| **Proper shipping name** | SODIUM NITRITE |
| **Class** | 5.1 ( 6.1) |
| **Packing group** | III |
| **Environmentally hazardous** | -- |
| **Special precautions for user** | no |

**Sea transport (IMDG)**

| | |
|---|---|
| **UN number** | UN 1500 |
| **Proper shipping name** | SODIUM NITRITE |
| **Class** | 5.1 ( 6.1) |
| **Packing group** | III |
| **Environmentally hazardous** | -- |
| **Special precautions for user** | yes |

EmS F-A S-Q

## SECTION 15. Regulatory information

### United States of America

#### OSHA Hazards

Oxidizer
Toxic by ingestion

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

#### SARA 311/312 Hazards

Fire Hazard
Acute Health Hazard

Reactivity Hazard
Acute Health Hazard

#### SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

*Ingredients*

| | | |
|---|---|---|
| sodium nitrite | 7632-00-0 | *100 %* |

#### SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

*Ingredients*
sodium nitrite

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

*Ingredients*
sodium nitrite

#### DEA List I

Not listed

#### DEA List II

Not listed

#### TSCA 12b

*Ingredients*

| | |
|---|---|
| sodium nitrite | 7632-00-0 |

### US State Regulations

#### Massachusetts Right To Know

*Ingredients*
sodium nitrite

#### Pennsylvania Right To Know

*Ingredients*
sodium nitrite

**New Jersey Right To Know**

*Ingredients*
sodium nitrite

**California Prop 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**Notification status**

| | |
|---|---|
| TSCA: | All components of the product are listed in the TSCA-inventory. |
| DSL: | All components of this product are on the Canadian DSL. |

## SECTION 16. Other information

**Training advice**

Provide adequate information, instruction and training for operators.

**Full text of H-Statements referred to under sections 2 and 3.**

| | |
|---|---|
| H272 | May intensify fire; oxidizer. |
| H301 | Toxic if swallowed. |
| H400 | Very toxic to aquatic life. |

**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.

Revision Date06/03/2014

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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