# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1 *Product identifiers***

Product name: **Sodium nitrite**

CAS-No.: **7632-00-0**

Product Number: **A71535**

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

Identified uses: Laboratory chemicals, Manufacture of substances

**1.3 *Details of the supplier of the safety data sheet***

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR, UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

**1.4 *Emergency telephone number***

Emergency Phone #: **+44 (0)845 1200 506**

## 2. HAZARDS IDENTIFICATION

**2.1 *Classification of the substance or mixture***

**According to Regulation (EC) No1272/2008;** Oxidizing solids (Category 3), Acute toxicity (Category 3), Acute aquatic toxicity (Category 1)

**According to European Directive 67/548/EEC as amended:** Contact with combustible material may cause fire. Toxic if swallowed. Very toxic to aquatic organisms.

**2.2 *Label elements***

Pictogram 

Signal word Danger

**Hazard statement(s):** H400 Very toxic to aquatic life. H272 May intensify fire; oxidiser. H301 Toxic if swallowed.

**Precautionary statement(s):** P220 Keep/Store away from clothing/ combustible materials. P273 Avoid release to the environment.

**Hazard symbol(s):** 

**R-phrase(s):** R 8 Contact with combustible material may cause fire. R25 Toxic if swallowed. R50 Very toxic to aquatic organisms.

**S-phrase(s):** S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**2.3 *Other hazards*** – no data available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 *Substances***

**Sodium nitrite**

| | |
|---|---|
| Formula: | $NaNO_2$ |
| Molecular Weight: | **69.00** |
| CAS-No.: | **7632-00-0** |
| EC-No.: | **231-555-9** |
| Index-No.: | **007-010-00-4** |

## 4. FIRST AID MEASURES

**4.1 *Description of first aid measures***

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2 *Most important symptoms and effects, both acute and delayed:*** no data available

**4.3 *Indication of immediate medical attention and special treatment needed:*** no data available

## 5. FIRE-FIGHTING MEASURES

**5.1 *Extinguishing media***

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 *Special hazards arising from the substance or mixture:*** no data available

**5.3 *Precautions for fire-fighters:*** Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 *Further information:*** Use water spray to cool unopened containers.

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 *Personal precautions, protective equipment and emergency procedures:*** Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**6.2 *Environmental precautions:*** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3** ***Methods and materials for containment and cleaning up:*** Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**6.4** ***Reference to other sections:*** For disposal see section 13.

## 7. HANDLING AND STORAGE

**7.1** ***Precautions for safe handling:*** Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

**7.2** ***Conditions for safe storage, including any incompatibilities:*** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Hygroscopic

**7.3** ***Specific end uses:*** no data available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1** ***Control parameters:*** Contains no substances with occupational exposure limit values.

**8.2** ***Exposure controls***

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment**

**Eye/face protection:** Face shield and safety glasses.

**Skin protection:** The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

**Body Protection:** Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| a) Appearance: | **Form**: Solid | **Colour**: no data available | |
| b) Odour: | no data available | | |
| c) Odour Threshold: | no data available | | |
| d) pH: | pH 9 | | |
| e) Melting/freezing point: | 271 °C | Melting point/range: no data available | |
| f) Initial boiling point and boiling range: | 320 °C | | |
| g) Flash point: | no data available | | |
| h) Evaporation rate: | no data available | | |
| i) Flammability (solid, gas): | no data available | | |

j) Upper/lower flammability or explosive limits: no data available

k) Vapour pressure: no data available

l) Vapour density: no data available

m) Relative density: 2.168 g/cm3

n) Water solubility: no data available

o) Partition coefficient: n-octanol/water: no data available

p) Autoignition temperature: 490 °C

q) Decomposition temperature: no data available

r) Viscosity: no data available

s) Explosive properties: no data available

t) Oxidizing properties: no data available

**9.2** ***Other safety information:*** no data available

## 10. STABILITY AND REACTIVITY

**10.1** ***Reactivity:*** no data available

**10.2** ***Chemical stability:*** Stable under recommended storage conditions.

**10.3** ***Possibility of hazardous reactions:*** no data available

**10.4** ***Conditions to avoid:*** Exposure to moisture.

**10.5** ***Incompatible materials:*** Acids, Powdered metals, Ammonia, Cyanides, Amines, Activated carbon

**10.6** ***Hazardous decomposition products:*** formed under fire conditions. - nitrogen oxides (NOx), Sodium oxides

## 11. TOXICOLOGICAL INFORMATION

**11.1** ***Information on toxicological effects***

**Acute toxicity:** LD50 Oral - rat - 157.9 mg/kg

LD50 Oral - mouse - 175 mg/kg

Remarks: Vascular:BP lowering not charactertized in autonomic section. Vascular:Regional or general arteriolar or venous dilation.

LD50 Oral - rabbit - 186 mg/kg

LD50 Oral - Chicken - 28.944 mg/kg

LC50 Inhalation - rat - 4 h - 5.5 mg/m3

LD50 Subcutaneous - rat - 96.6 mg/kg

LD50 Intravenous - rat - 65 mg/kg

LD50 Intraperitoneal - mouse - 158 mg/kg

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** Eyes - rabbit - Mild eye irritation - 24 h

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** IARC: 2A - Group 2A: Probably carcinogenic to humans (Sodium nitrite)

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Potential health effects**

| | |
|---|---|
| **Inhalation** | May be harmful if inhaled. May cause respiratory tract irritation. |
| **Ingestion** | Toxic if swallowed. |
| **Skin** | May be harmful if absorbed through skin. May cause skin irritation. |
| **Eyes** | May cause eye irritation. |

**Signs and Symptoms of Exposure:** Headache, Nausea, Incoordination.

**Additional Information:** RTECS: RA1225000

## 12. ECOLOGICAL INFORMATION

**12.1 *Toxicity:*** Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 0.092 mg/l - 96.0 h

mortality NOEC - *Oncorhynchus mykiss* (rainbow trout) - 0.54 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - Daphnia magna (Water flea) - 12.5 mg/l - 48 h

**12.2 *Persistence and degradability:*** no data available

**12.3 *Bioaccumulative potential:*** no data available

**12.4 *Mobility in soil:*** no data available

**12.5 *Results of PBT and vPvB assessment:*** no data available

**12.6 *Other adverse effects:*** Very toxic to aquatic organisms.

## 13. DISPOSAL CONSIDERATIONS

**13.1 *Waste treatment methods***

**Product:** Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging:** Dispose of as unused product.

**14. TRANSPORT INFORMATION**

**14.1 *UN-Number***

| | | | | | |
|---|---|---|---|---|---|
| ADR/RID: | 1500 | IMDG: | 1500 | IATA: | 1500 |

**14.2 *UN proper shipping name***

| | |
|---|---|
| ADR/RID: | SODIUM NITRITE |
| IMDG: | SODIUM NITRITE |
| IATA: | SODIUM NITRITE |

**14.3 *Transport hazard class(es)***

| | | | | | |
|---|---|---|---|---|---|
| ADR/RID: | 5.1 (6.1) | IMDG: | 5.1 (6.1) | IATA: | 5.1 (6.1) |

**14.4 *Packaging group***

| | | | | | |
|---|---|---|---|---|---|
| ADR/RID: | III | IMDG: | III | IATA: | III |

**14.5 *Environmental hazards***

ADR/RID: no IMDG Marine pollutant: no IATA: no

**14.6 *Special precautions for users:*** EMS-No: F-A, S-Q

**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.1 *Safety, health and environmental regulations/legislation specific for the substance or mixture:*** no data available

**15.2 *Chemical Safety Assessment:*** no data available

**16. OTHER INFORMATION**

Acute Tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity

H272 May intensify fire; oxidiser.

H301 Toxic if swallowed.

H400 Very toxic to aquatic life.

Ox. Sol. Oxidizing solids

N Dangerous for the environment

O Oxidising

T Toxic

R 8 Contact with combustible material may cause fire.

R25 Toxic if swallowed.

R50 Very toxic to aquatic organisms.