

**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING**

**Product Identifier:**

**Chemical Name (EINECS):** Sodium Nitrate – Prills

**Synonyms:** Nitric acid sodium salt / Nitric acid, sodium salt / Sodium(I) nitrate (1:1) / Nitric acid sodium salt (1:1) / SODIUM NITRATE /Sodium nitrate

**Formula:** HNO<sub>3</sub>.Na

**CAS Number:** 7631-99-4

**EINECS Number:** 231-554-3

**REACH Registration Number:** 01-2119488221-41-XXXX

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

**Identified use(s):**

**Main use category:** Industrial use resulting in manufacture of another substance (use of intermediates).  
Formulation of preparations.

**Industrial/Professional use spec:** Formulation of preparations. Intermediate. Heat transfer agent.

**Use of the substance/mixture:** Adhesives, sealants.  
Explosives.  
Metal surface treatment products, including galvanic and electroplating products.  
Heat Transfer Fluids.  
Hydraulic Fluids.  
Products such as pH-regulators, flocculants, precipitants, neutralization agents.  
Cosmetics, personal care products.  
Pyrotechnic article.  
Construction materials.

**Uses advised against:**

**Restrictions on use:** Food/feedstuff additives. Water treatment chemicals. Fertilisers.

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**2. HAZARDS IDENTIFICATION****Classification of the substance or mixture:****Regulation 1272/2008 (EU-GHS/CLP):** Ox. Sol. Cat. 3 H272

Eye Irrit. Cat. 2 H319

**Adverse physicochemical, human health and environmental effects:**

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice. May intensify fire, oxidiser. Causes serious eye irritation.

**Label elements:****According to Regulation (EC) No. 1272/2008 (CLP):****Pictogram:****Signal word(s):**

Warning.

**Hazard statement(s):**

H272 May intensify fire; oxidiser.

H319 Causes serious eye irritation.

**Precautionary statement(s):**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 - Keep away from clothing and other combustible materials.

P280 - Wear protective gloves, protective clothing, eye protection.

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

P337+P313 - If eye irritation persists: Get medical advice/attention.

P370+P378 - In case of fire: Use any suitable mean for extinguishing surrounding fire. Spray water for small fires. For large fires flood with abundant water to extinguish.

**Other hazards:**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

**3. COMPOSITION / INFORMATION ON INGREDIENTS****Substances:****Substance type:**

Mono constituent

Substance Name	CAS No.	EC No.	EC REACH Registration No.	Weight Content
Sodium Nitrate	7631-99-4	231-554-3	01-2119488221-41-XXXX	>= 95%

#### 4. FIRST AID MEASURES

**Description of first aid measures:**

<b>General Advice:</b>	Call a poison centre or a doctor if you feel unwell. In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
<b>Inhalation:</b>	Remove person to fresh air and keep comfortable for breathing.
<b>Skin contact:</b>	Wash skin with plenty of water.
<b>Eye contact:</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse eyes with water as a precaution.
<b>Ingestion:</b>	Rinse mouth out with water. Call a poison centre or a doctor if you feel unwell.

**Most important symptoms and effects, both acute and delayed:**

<b>Symptoms/effects:</b>	Not expected to present a significant hazard under anticipated conditions of normal use.
<b>Symptoms/effects after inhalation:</b>	Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
<b>Symptoms/effects after skin contact:</b>	May cause skin irritation.
<b>Symptoms/effects after eye contact:</b>	Causes serious eye damage. Eye irritation.
<b>Symptoms/effects after ingestion:</b>	On ingestion in large quantities: Irritation of the gastric/intestinal mucosa.

**Indication of any immediate medical attention and special treatment needed:**

Treat symptomatically. In the event of inhalation of decomposition products: Symptoms may be delayed.

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:**

<b>Suitable extinguishing media:</b>	Use any suitable mean for extinguishing surrounding fire. Spray water for small fires. For large fires flood with abundant water. Water spray. Dry powder. Foam.
<b>Unsuitable material:</b>	None known.

**Special hazards arising from the substance or mixture**

<b>Fire hazard:</b>	May intensify fire; oxidiser.
<b>Explosion hazard:</b>	Not explosive.
<b>Hazardous decomposition products in case of fire:</b>	Toxic fumes may be released.
<b>Thermal decomposition generates:</b>	Nitrogen oxides. Nitrites. sodium nitrite.

**Advice for fire-fighters**

<b>Precautionary measures fire:</b>	Do not approach fire except upwind and only with proper skin and respiratory protection (supplied air only).
<b>Protection during firefighting:</b>	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures:

**Non-emergency personnel:** Emergency procedures: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

### 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".

**Environmental precautions:** Avoid release to the environment. Do not allow to enter drains or water courses.

### Methods and material for containment and cleaning up:

**Methods for cleaning up:** Mechanically recover the product. Shovel into suitable and closed container for disposal. Do not absorb with sawdust or any other combustible absorbent material. Notify authorities if product enters sewers or public waters.

**Other information:** Dispose of materials or solid residues at an authorised site.

### Reference to other sections:

For further information refer to **section 8:** "Exposure controls/personal protection". For disposal of residues refer to section 13 : Disposal considerations" .

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Ensure good ventilation of the workstation. Avoid dust formation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes.

**Hygiene measures:** Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Use good personal hygiene practices.

### Conditions for safe storage:

**Technical measures:** Avoid dust formation. Ensure adequate ventilation, especially in confined areas. Keep in original containers closed.

**Storage conditions:** Keep only in the original container in a cool, well-ventilated place away from: Heat sources, flames or sparks. Store in a well-ventilated place. Keep cool.

**Incompatible materials:** Flammable or combustible materials. Reducing agents. strong acids.

**Heat and ignition sources:** Keep away from heat. Keep away from ignition sources.

**Specific end use(s):** No further relevant information.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

No specific occupational exposure limits

**DNEL/DMEL and PNEC Values:** Sodium nitrate (7631-99-4)

**DNEL/DMEL (Workers):** Long-term - systemic effects, dermal: Not applicable  
Long-term - systemic effects, inhalation: Not applicable

**DNEL/DMEL (General population):** Long-term - systemic effects, oral: Not applicable  
Long-term - systemic effects, inhalation: Not applicable  
Long-term - systemic effects, dermal: Not applicable

**PNEC (Water):** PNEC aqua (freshwater): Not applicable  
PNEC aqua (marine water): Not applicable

**PNEC (Sediment):** PNEC sediment (freshwater): Not applicable

**PNEC (Soil):** PNEC soil: Not applicable

**PNEC (Oral):** PNEC oral (secondary poisoning): Not potentially bio accumulable

**PNEC (STP):** PNEC sewage treatment plant: 18 mg/l

### Exposure controls:

**Appropriate engineering controls:** Ensure good ventilation of the workstation. Local exhaust is recommended where dust may occur. Emergency eye wash fountain with clean water.

**Hand protection:** Protective gloves .

**Eye protection:** Safety glasses with side shields.

**Skin and body protection:** Wear suitable protective clothing.

**Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**Environmental exposure controls:** Do not allow to enter drains or water courses. Avoid release to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties:

**Physical state:** Solid.

**Appearance:** Prilled.

**Colour:** Colourless.

**Odour:** Odourless.

**Odour threshold:** No data available.

**pH:** 8 - 10

**Relative evaporation rate (butyl acetate=1):** No data available.

**Melting point:** 307 °C

**Freezing point:** Not applicable.

**Boiling point:** Not applicable.

**Flash point:** Not applicable.

**Auto-ignition temperature:** Not applicable.

**Decomposition temperature:** > 600 °C (Published data).

**Flammability (solid, gas):** Not flammable.

**Vapour pressure:** Negligible vapour pressure at ambient conditions.

**Relative vapour density at 20 °C:** No data available.

**Relative density:** Not applicable.

**Density:** 2.26 (Published data).

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<b>Solubility:</b>	Water: > 100 g/l (Published data).
<b>Log Pow:</b>	-3.8 (25 °C)
<b>Viscosity, kinematic:</b>	No data available.
<b>Viscosity, dynamic:</b>	No data available.
<b>Explosive properties:</b>	Product is not explosive.
<b>Oxidising properties:</b>	Oxidising. Test O.1 Test for oxidising solids.
<b>Explosive limits:</b>	Not applicable.
<b>Other information:</b>	No further data.

### 10. STABILITY AND REACTIVITY

**Reactivity:** The product is non-reactive under normal conditions of use, storage and transport. May cause or intensify fire, oxidiser.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** No dangerous reactions known under normal conditions of use.

**Conditions to avoid:** None under recommended storage and handling conditions (see section 7). Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

**Incompatible materials:** Flammable materials. Fuels. Reducing agents. Combustible materials.

**Hazardous decomposition products:** Thermal decomposition may produce : Nitrites. Nitrogen oxides. Sodium nitrite.

### 11. TOXICOLOGICAL INFORMATION

#### Information on toxicological effects:

Acute toxicity (oral): Not classified. Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Not classified. Based on available data, the classification criteria are not met.

Acute toxicity (inhalation): Not classified. Based on available data, the classification criteria are not met.

**Sodium nitrate (7631-99-4):** LD50 oral rat:> 2000 mg/kg  
LD50 dermal rat:> 5000 mg/kg bodyweight

**Skin corrosion/irritation:** Not classified (Not irritating to skin) pH: 8 – 10. Based on available data, the classification criteria are not met

**Serious eye damage/irritation:** Irritating pH: 8 - 10

[cont...]

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**Respiratory or skin sensitisation:** Skin sensitisation: Not applicable.

Respiratory sensitisation: No data available

**Germ cell mutagenicity:** Not classified. Based on available data, the classification criteria are not met. Mutagenicity tests are negative OECD 471 METHOD (OECD 473 method).

**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.

**Sodium nitrate (7631-99-4):** NOAEL (animal/male, F0/P)  $\geq$  1500 mg/kg bodyweight  
NOAEL (animal/female, F0/P)  $\geq$  1500 mg/kg bodyweight  
NOAEL (animal/male, F1): No data available  
NOAEL (animal/female, F1): No data available  
STOT-single exposure: Not classified (Based on available data, the classification criteria are not met)  
STOT-repeated exposure: Not classified. Based on available data, the classification criteria are not met

**Sodium nitrate (7631-99-4):** NOAEL (oral, rat, 90 days)  $\geq$  1500 mg/kg bodyweight/day  
NOAEL (dermal, rat/rabbit, 90 days): No data available  
NOAEC (inhalation, rat, gas, 90 days): No data available

**Aspiration hazard:** Not classified.

## 12. ECOLOGICAL INFORMATION

**Toxicity:**

**Ecology – general:** The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

**Hazardous to the aquatic environment, short-term (acute):** Not classified

**Sodium nitrate (7631-99-4):** LC50 fish 1: 1354 mg/l Freshwater  
LC50 fish 2: 4400 mg/l (marine water)  
EC50 Daphnia 1: 8600 mg/l EC50 24h - Daphnia magna [mg/l]  
EC50 96h algae (1):  $> 1700$  mg/l  
ErC50 (algae):  $> 1700$  mg/l 10 days

**Persistence and degradability:**

**Sodium nitrate (7631-99-4):** No available data.

**Bio accumulative potential:**

**Sodium nitrate (7631-99-4):** Low bioaccumulation potential. Material highly soluble in water.  
Log Pow -3.8 (25°C)

**Mobility in soil:**

**Sodium nitrate (7631-99-4):** Ecology – soil: Product adsorbs little onto the soil.

[cont...]

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### Results of PBT and vPvB assessment:

**Sodium nitrate (7631-99-4):** This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.  
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.

**Other adverse effects:** No further relevant data.

### 13. DISPOSAL CONSIDERATIONS

**Regional legislation (waste):** Comply with applicable regulations for solid waste disposal. Dispose in a safe manner in accordance with local/national regulations.

**Waste treatment methods:** Dispose of contents/container in accordance with licensed collector's sorting instructions.

### 14. TRANSPORT INFORMATION

#### Land transport (ADR/RID):

**UN Number:** 1498  
**Proper shipping name:** SODIUM NITRATE  
**Class(es):** 5.1  
**Classification code:** 02  
**Packing group:** III  
**Hazard label(s):** 5.1 (oxidising)  
No



#### Inland waterway transport (ADN):

**UN Number:** 1498  
**Proper shipping name:** SODIUM NITRATE  
**Class(es):** 5.1  
**Classification code:** 02  
**Packing group:** III  
**Hazard label(s):** 5.1 (oxidising)



[cont...]



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### Sea transport (IMDG):

**UN Number:** 1498  
**Proper shipping name:** SODIUM NITRATE  
**Class(es):** 5.1  
**Packing group:** III  
**Marine pollutant:** No  
**Hazard label(s):** 5.1 (oxidising)



**Special provision:** 964

### Air transport (ICAO-TI/ IATA-DGR):

**UN Number:** 1498  
**Proper shipping name:** SODIUM NITRATE  
**Class(es):** 5.1  
**Packing group:** III  
**Hazard label(s):** 5.1 (oxidising)



**Special provision:** None

**Special precautions for users:** None

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

**Remark:** None

## 15. REGULATORY INFORMATION

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

No REACH Annex XVII restrictions.

Sodium Nitrate Industrial grade Prills is not on the REACH Candidate List Sodium Nitrate

Industrial grade Prills is not on the REACH Annex XIV List.

Sodium nitrate is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Sodium nitrate is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants.

The product is subject to the Regulation (EU) No 98/2013 of the European Parliament and of the Council of 15 January 2013 on the marketing and use of explosives precursors.

[cont...]

**Directive 2012/18/EU (SEVESO III):** Seveso Additional information: Oxidising Solids, Category 3.

**National regulations:**

- Listed on the AICS (Australian Inventory of Chemical Substances).
- Listed on the Canadian DSL (Domestic Substances List).
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China).
- Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances).
- Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory.
- Listed on the Korean ECL (Existing Chemicals List).
- Listed on NZIoC (New Zealand Inventory of Chemicals).
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances).
- Listed on the United States TSCA (Toxic Substances Control Act) inventory.
- Listed on the Canadian IDL (Ingredient Disclosure List).
- Listed on INSQ (Mexican National Inventory of Chemical Substances).
- Listed on Turkish inventory of chemical.

**Major Accident Hazard Legislation:**

**Chemical safety assessment:** A chemical safety assessment has been carried out.

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

## 16. OTHER INFORMATION

**Full text of H- and EUH-statements:**

Eye Irrit. 2:	Serious eye damage/eye irritation, Category 2
Ox. Sol. 3:	Oxidising Solids, Category 3
H272:	May intensify fire; oxidiser.
H319:	Causes serious eye irritation.

**Legal disclaimer:** The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.