



SAFETY DATA SHEET

■ V7 in accordance with Regulation (EC) 1907/2006 (REACH) amended with
Commission Regulation (EU) 2015/830 ■

■ V7 – amendments in this revision ■

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING			
1.1 Product identifier			
Trade name	Sodium nitrate technical grade		
Synonyms	Sodium nitrate, Chile saltpetre		
EC number:	231-554-3		
REACH registration no(s):	01-2119488221-41-0001		
CAS number:	7631-99-4		
NEOCHIM PLC code	21-01		
1.2 Relevant identified uses of the substance or mixture and uses advised against			
Uses:	Formulation of mixtures (fertilizers, explosives); Intermediate, pH-regulators, flocculants, precipitants, heat transfer agents, neutralizing agents on industrial sites and by professional workers; Consumer use (fertilizers, pyrotechnics) Remarks: For more detail information please see ES provided in the annex		
Uses advised against:	No data available		
1.3 Details of the supplier of the safety data sheet			
Manufacturer: Address: Tel./fax: URL website: Email:	NEOCHIM PLC East Industrial Zone, Himkombinatska Str. 6403 Dimitrovgrad, Bulgaria +359 391 65 205; +359 391 60 555 http:// www.neochim.bg neochim@neochim.bg		
Company e-mail for SDS	pto@neochim.bg		
1.4 Emergency telephone number			
■ V7 National Toxicology Center - Pirogov	+359 2 915 44 09	24/24 h	7/7 d ■
NEOCHIM PLC	+359 2 809 20 30	24/24 h	7/7 d
SECTION 2: HAZARDS IDENTIFICATION			
The most important adverse effects			
Physical and chemical effects: Oxidizer. Contact with combustible materials may causes fire. Keep away from heat, flame, shock, friction, sources of ignition, and incompatible materials.			
Human health effects: Contact with skin and eyes may causes irritation, reddening, itch and pain. The ingestion of small quantities cannot cause toxic effect. Ingestion of large quantities /which is not likely due to its bitter taste/ may cause gastroenteritis and intestinal pain, dizziness, convulsions and seizure. Inhalation of dust may causes irritation of the nose and the upper part of the respiratory system with symptoms of sore throat, coughing and hard breathing.			
Environmental effects: Large amounts of fertilizer can cause eutrophication of surface waters.			
2.1 Classification of the substance			

<p>■ V7 2.1.1 Classification of the substance or mixture in accordance with Regulation 1272/2008 (CLP) and its amendments at the date of the issue of the document ■</p>		
<p>Oxidising solid, hazard category 3 (Oxid. Solid 3), H272 Serious eye damage/ eye irritation, hazard category 2 (Eye Irrit.2), H319</p>		
<p>2.1.2 Additional information: For full text of H statement: see Section 16</p>		
<p>■ V7 2.2 Label elements</p>		
<p>Labelling in accordance with Regulation 1272/2008 (CLP) and its amendments at the date of the issue of the document ■</p>		
<p>Hazard pictogram(s):</p>		 
		<p>GHS03 GHS07</p>
<p>Signal word</p>		<p>Warning</p>
<p>Hazard statement(s):</p>	<p>H272 H319</p>	<p>May intensify fire; oxidiser. Causes serious eye irritation.</p>
<p>Precautionary statement(s):</p>	<p>P210 P220 P370+P378 P264 P280 P305+P351+P338 P337+P313 P403+ P233 P501</p>	<p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing, reducing agents and other combustible materials In case of fire: use plenty of dispersed and finely dispersed water jets to extinguish. Wash hands thoroughly after handling. Wear long sleeved overall, chemically resistant gloves, chemical goggles or full face shield. IF IN EYES: 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. Store in a well-ventilated place. Keep container tightly closed. Dispose of content/packing/ in accordance with national waste legislation.</p>
<p>2.3 Other hazards</p>		
<p>PBT/vPvB criteria:</p>		<p>According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted since sodium nitrate is inorganic.</p>
<p>Other hazards:</p>		<p>Not known</p>
<p>SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS</p>		
<p>3.1 Substances - ■ V6 according to REACH regulation this product is a substance ■</p>		
<p>Name</p>	<p>CAS no.</p>	<p>Content, % (w/w)</p>
<p>Sodium nitrate</p>	<p>7631-99-4</p>	<p>min 99.5</p>
<p>SECTION 4: FIRST- AID MEASURES</p>		
<p>4.1 Description of first aid measures</p>		
<p>General notes:</p>		<p>Speed is essential. If unconscious, place casualty in a recovery position with head sideways to avoid choking. Provide shower and eye wash station near the workplace</p>

- following eye contact:	Immediately rinse the affected eye with plenty of water or eye wash fluid for at least 15 minutes while separating the eyelids. Remove contact lenses if safe and easy to do so and continue rinsing. Avoid contaminated water coming into contact with other eye or face. Seek medical attention if symptom persist or develop.
- following skin contact:	Immediately remove any contaminated clothing including jewellery, and rinse affected area with plenty of water (or soap and water) for at least 30 minutes and seek immediate medical attention.
- following ingestion:	Do NOT Induce vomiting. Rinse out mouth with water if casualty is fully conscious. Seek medical attention if symptoms persist or develop.
- following inhalation:	Immediately remove casualty to fresh air and keep them warm. If breathing has stopped, and safe to do so, apply artificial resuscitation using a barrier device. Seek medical attention if symptoms persist or develop.
4.2 Most important symptoms and effects, both acute and delayed	
Acute effects	Irritation of respiratory tract, eye or skin. Nails and lips are turning blue. Ingestion of large amounts may cause gastrointestinal disturbances.
Delayed effects	If swallowed, the substance can causes blood changes with formation of methaemoglobin. This is usually delayed effects. Irritation of the respiratory tract, eyes, skin and gastroenterological symptoms can also occur later.
4.3 Indication of any immediate medical attention and special treatment needed	
Notes to the doctor: Treat symptomatically. In case of inhalation of combustion products delayed pulmonary oedema may occur. 48 hours medical observation is strongly recommended.	
SECTION 5: FIRE - FIGHTING MEASURES	
5.1 Extinguishing media	
Suitable:	If the product is not directly involved in the fire - use any suitable mean for extinguishing surrounding fire. If the product is involved: use dispersed and finely dispersed water.
Not suitable:	Do not use chemical extinguishers with foam
5.2 Special hazards arising from the substance or mixture	
Thermal decomposition may form toxic/corrosive gases and vapors. See section 10.	
5.3 Advice for firefighters	
In the event of fire, wear a self-contained breathing apparatus and chemical protective clothing.	
SECTION 6: ACCIDENTAL RELEASE MEASURES	
6.1 Personal precautions, protective equipment and emergency procedures	
Immediately evacuate the personnel, not occupied with the removal of the accident in the area. Provide adequate ventilation. Wear personal protective equipment.	
6.2 Environmental precautions	
Do not allow spillage of the product. Prevent contact with surface water or sanitary sewer system. Ensure waste is collected. Inform authorities in case of accidental contamination of some environmental components.	
6.3 Methods and material for containment and cleaning up	
Take up mechanically; placing in appropriate labelled containers for recovery or disposal. Unsuitable material for taking up: do not absorb in saw-dust or other combustible absorbents.	
6.4 Reference to other sections	

See section 1 in case of emergency, see section 8 for personal protective equipment and section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Technical measures:	Avoid unnecessary generation of dust. Provide adequate ventilation. Keep away from sources of ignition, flammable substances and with incompatible materials. Avoid unnecessary exposure to weather conditions, to prevent absorption of moisture. Use the appropriate personal protective equipment - gloves, safety glasses, dust masks.
General occupation hygiene:	Do not to eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/ Storage conditions:	Storage facilities are in compliance with national and regional laws. They should be dry and well ventilated. Keep only in original container, away from sources of ignition and heat. Keep containers tightly closed. Separate from incompatible and combustible materials, organic or other readily oxidizable materials. Avoid storage on wood floors. Protect from physical damage and moisture. Do not allow smoking or open fire in the warehouse.
Incompatible products:	Combustible substance, reducing agents. (see section 10)
7.3 Specific end uses	Further information concerning special risk management measures: see annex of this safety data sheet (exposure scenarios).

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Regulated occupational exposure limit values:	No specific occupational exposure limit. Generic occupational limits for particulates: EU: 10 mg/m ³
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(DNEL) Derived No-Effect Level

workers

Route of exposure	Acute effect, local	Acute effects, systemic	Chronic effects, local	Chronic effects, systemic
Inhalation	No hazard identified	No hazard identified	Hazard unknown (no further information necessary)	Hazard unknown (no further information necessary)
Dermal	No hazard identified	No hazard identified	No hazard identified	No hazard identified

Eyes - Local Effects, Low hazard (no threshold derived)

Oral - No need

general population

Route of exposure	Acute effect, local	Acute effects, systemic	Chronic effects, local	Chronic effects, systemic
Inhalation	No hazard identified	No hazard identified	Hazard unknown (no further information)	Hazard unknown (no further information)

			necessary)	information necessary)
Dermal	No hazard identified	No hazard identified	No hazard identified	No hazard identified
Eyes - Local Effects, Low hazard (no threshold derived)				
Oral - No need				
(PNEC) Predicted No Effect Concentration				
Freshwater	no exposure assessment is required			
Sediments (freshwater)	no exposure assessment is required			
Marine water	no exposure assessment is required			
Sediments (marine water)	no exposure assessment is required			
Sewage treatment plant	18 mg/L, Assessment factor: 10			
Soil	no exposure assessment is required			
Air	no exposure assessment is required			
8.2 Exposure controls				
Appropriate engineering controls:	Further information concerning special risk management measures: see annex of this safety data sheet (exposure scenarios).			
Environmental exposure controls:				
Individual protection measures, such as personal protective equipment				
Respiratory protection:	Dust mask or respiration with an appropriate filter (recommended: EN 143, 149, filters P2, P3) in case of dust emission or dusty environments.			
Hand protection:	Safety gloves - nitrile rubber gloves with a thickness exceeding 0.11mm, resistant breakthrough for more than 480 min (optional).			
Eye protection:	Chemical goggles, or full face shield if splashing is possible (EN166)			
Skin and body protection:	Long sleeved overall			
Hygiene measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.			
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES				
9.1 Information on basic physical and chemical properties				
Appearance:	Colourless or white crystals, powder or granules			
Odour:	Odourless			
Melting/Freezing temperature:	ca. 307°C at 101.3kPa (from peer-reviewed handbook)			
Boiling temperature:	Not determined, no melting up to 300°C.			
Flash-point:	Not relevant, as the substance is an inorganic solid.			
Flammability:	Non flammable into contact with an ignition source (UN test), with water or with air (based on molecular structure).			
Vapour pressure:	Considered negligible (based on melting point)			
Relative density:	2.26 at 20 °C (from peer-reviewed handbook)			
Solubility in water:	>100 g/l at 20 °C (from peer-reviewed handbook)			

Partition coefficient n-octanol/water:	Not relevant as the substance is inorganic, but considered to be low (based on high water solubility)
Viscosity:	Not applicable to solids
Specific conductivity:	No data.
Decomposition temperature:	Thermal decomposition does not occur below 550°C (peer reviewed handbook)
Self-ignition temperature:	Based on structure, known reactivity and classification based on physico-chemical hazards, sodium nitrate is not a self-heating substance.
Explosive properties:	Not explosive (EC tube test)
Oxidizing properties:	Crystals: oxidising (EC A.17, UN1498)
Surface tension:	Not surface active (based on molecular structure)

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product is strong oxidiser.

10.2 Chemical stability

The product is stable under the recommended conditions in Section 7.

10.3 Possibility of hazardous reactions

Under normal conditions no hazardous reactions expected.

10.4 Conditions to avoid

Heat, flame, ignition sources, shock, friction, incompatible materials.

10.5 Incompatible materials

Flammable and combustible materials, reducing agents and oxidizable substances.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. By thermal decomposition - nitrous oxides, sodium nitrite and sodium oxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1. Acute toxicity

Method	Route of exposure	Species	Effective dose	Result
	Inhalation			No study available
OECD 402, with potassium nitrate	Dermal	rat	LD ₅₀ > 2000 mg/kg bw	No adverse effects observed
OECD 401	Oral	rat	LD ₅₀ > 2000 mg/kg bw	No adverse effects observed

11.1.2. Skin corrosion/irritation





Method	Species	Result
OECD 404, with ammonium nitrate	rabbit	Not irritating

11.1.3. Serious eye damage/irritation

Method	Species	Result
OECD 405, with ammonium nitrate	rabbit	irritating
11.1.4 Respiratory or skin sensitisation		
Method	Species	Result
OECD 429	mouse	Not sensitising
11.1.5. Sub-acute toxicity:	Oral 28-day NOAEL \geq 1500 mg/kg bw (OECD 422, with potassium nitrate) No dermal and inhalation toxicity studies are available. Inhalation exposure seems to be an unlikely route of exposure as the vapour pressure is considered to be very low and the particle size of the substance is quite high	
11.1.6. Germ cell mutagenicity:	In vitro: Negative (OECD 471, 473) Negative (chromosome aberration, no guideline followed) In vivo: Negative in chromosome aberration, micronucleus, UDS, sperm abnormalities. In other micronucleus test positive. Overall found to be negative.	
11.1.7. Reproductive toxicity:	No fertility effects or effects on reproductive organs were observed up to and including the highest dose tested of 1500 mg/kg bw/d in an oral OECD 422 study in rats with potassium nitrate.	
11.1.8. Carcinogenicity:	Several carcinogenicity studies are present with sodium nitrate, which are evaluated by WHO and IARC. The data do not indicate carcinogenic potential of sodium nitrate.	
11.1.9. Developmental toxicity	No adverse effect observed NOAEL: \geq 1500 mg/kg bw/day (subacute; rat)	
SECTION 12: ECOLOGICAL INFORMATION		
12.1 Toxicity		
Acute (short-term) toxicity:		
LC50 for freshwater fish: 1354 mg/L LC50 for marine water fish: 4400 mg/L EC50/LC50 for freshwater invertebrates: 8600 mg/L EC50/LC50 for freshwater algae: > 1700 mg/L EC10/LC10 or NOEC for freshwater algae: 1700 mg/L		
Chronic (long-term) toxicity:		
Fish	In accordance with column 2 of REACH Annex IX, no long term toxicity testing is proposed as the chemical safety assessment does not indicate a need to further investigate the effects on fish. All data available on sodium nitrate itself and on the other nitrates show a very low toxicity of sodium nitrate. In addition, the substance does have a very high water solubility and its chemical properties do not indicate bioaccumulation. Therefore, the study is not considered necessary	
Aquatic invertebrates	In accordance with column 2 of REACH Annex IX, no long term toxicity testing is proposed as the chemical safety assessment does not indicate a need to further investigate the effects on aquatic invertebrates. All data available on sodium nitrate itself and on the other nitrates show a very low toxicity of sodium	

	nitrate. In addition, the substance does have a very high water solubility and its chemical properties do not indicate bioaccumulation
Daphnia magna (long-term):	No data
Algae:	10-d EC ₅₀ : >1700 mg/l (no guideline followed, with potassium nitrate)
Inhibition of microbial activity:	3-h EC ₅₀ : >1000 mg/l; NOEC 180 mg/l (OECD 209)
12.2 Persistence and degradability	
Abiotic Degradation	In accordance with REACH Annex XI, section 1, testing may be omitted if testing does not appear scientifically necessary. No hydrolysable group is present. In addition, the test method is not applicable as the substance is completely dissociated into ions in water: Na ⁺ and NO ₃ ⁻ . Therefore, testing is considered not necessary.
Physical and photo-chemical elimination	Simple inorganic salts are not susceptible to photodegradation. In accordance with REACH Annex XI, section 2, testing may be omitted if it is technically not possible to conduct the study. Performance of the test is not relevant for a simple inorganic salt as sodium nitrate.
Biodegradation	Nitrate degradation is fastest in anaerobic conditions. In the anaerobic transformation of nitrate into N ₂ , N ₂ O and NH ₃ , the biodegradation rate in wastewater plant at 20 degrees Celsius is 70 g N/kg dissolved solid/day.
12.3 Bioaccumulative potential	
Octanol-water partition coefficient (K _{ow}):	Not relevant as the substance is inorganic, but considered low (based on high water solubility).
Bioconcentration factor (BCF):	V6 Low potential for bioaccumulation (based on substance properties). Simple inorganic salts with high aqueous solubility will exist in a dissociated form in an aqueous solution.
12.4 Mobility in soil	
Adsorption coefficient:	Low potential for adsorption (based on substance properties).
12.5 Results of PBT and vPvB assessment	
According to Annex XIII of Regulation (EC) No 1907/2006, no PBT and vPvB assessment has been conducted since sodium nitrate is inorganic.	
SECTION 13: DISPOSAL CONSIDERATIONS	
Waste from residues:	The determination of the waste codes / name of waste must be conducted in accordance with EEC specific industrial and manufacturing process. Communicate licensed companies for waste disposal. Disposal under the law. Do not allow entry into surface waters or sewage.
Package waste disposal:	Try to empty the bag as possible. According to local regulations empty bags can be treated as non-hazardous materials or returned for recycling. Reuse of packages is not allowed.

SECTION 14: TRANSPORT INFORMATION

	UN Number	Proper shipping name	Class	Packing group	Label	Other applicable information
ADR/RID	UN1498	Sodium nitrate	5,1	III		Hazard identification number: 50 Limited quantity: LQ12
ADN/ADNR	UN1498	Sodium nitrate	5,1	III		
IMDG	UN1498	Sodium nitrate	5,1	III		
ICAO/IATA	UN1498	Sodium nitrate	5,1	III		

SECTION 15: REGULATORY INFORMATION

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

EU regulations	Regulation EC 1907/2006 (REACH), Regulation EC 1272/2008 (CLP), Regulation (EC) 453/2010
Authorisation and/or restrictions on use	No
Other EU regulations	1. Directive 2012/18/EU on the control of major accident hazards involving dangerous substances (Seveso III) qualifying quantities (tonnes) are: 1. - min.50; 2.- min.200 2. Regulation EC 98/2013 on the marketing and use of explosives precursors Annex II,

* Regulations / legislation and amendments to the date of issue of the document are indicated

15.2 Chemical safety assessment:	In accordance with REACH Article 14, a Chemical Safety Assessment has been carried out for this substance.
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SECTION 16: OTHER INFORMATION

Indication of changes: Changes of the last version are highlighted with **■ V7...■** . This version replaces all previous versions.

H statement

May intensify fire; oxidiser (H272).
Causes serious eye irritation (H319).

List of abbreviations

PBT – persistent, bioaccumulative and toxic
vPvB - very persistent and very bioaccumulative
NOAEL - no observed adverse effect level
NOAEC - no observed adverse effect concentration
DNEL - derived no-effect level
PNEC - predicted no-effect concentration
PEC - predicted environmental concentration
LOEC - lowest observed effect concentration
NOEC - no observed effect concentration
OECD - Organisation for Economic Cooperation and Development
LC_x - lethal concentration
EC_x - effective concentration
LD_x - lethal dose

The information above is on the basis of our knowledge about the product and represents the data currently available to us at the moment of safety data sheet issue. This document is intended as guidance for the appropriate precautionary handling with the product by a properly trained person using this product, and does not legally bind in no way manufacturer with guarantee for specific properties, qualities and applications. Neochim PLC does not grant, guarantee or implies any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Neochim PLC does not carry any liability for damages resulting from the product use or reliance upon this information, data and recommendations for it. Users are responsible to make their own investigations to determine the suitability of the information and the product for their particular purposes, and to comply with applicable laws.

ANNEX

2. Exposure scenario 2: Formulation - Formulation or re-packing of Sodium Nitrate	
2. Formulation - Formulation or re-packing of Sodium Nitrate	
Product category / UCN code:	
PC 1, Adhesives, sealants	
PC 4, Anti-Freeze and de-icing products	
PC 11, Explosives	
PC 12, Fertilizers	
PC 14, Metal surface treatment products, including galvanic and electroplating products	
PC 16, Heat transfer fluids	
PC 17, Hydraulic fluids	
PC 20, Products such as pH-regulators, flocculants, precipitants, neutralization agents	
PC 35, Washing and cleaning products (including solvent based products)	
PC 37, Water treatment chemicals	
PC 39, Cosmetics, personal care products	
K35000, Construction materials (building materials)	
S50200, Pyrotechnical products	
Environment contributing scenario(s):	
Formulation or re-packing of Sodium Nitrate	ERC 2; ERC 3
Worker contributing scenario(s):	
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities. Industrial setting.	PROC 8a
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at dedicated facilities. Industrial setting.	PROC 8b
Transfer of substance into small containers (dedicated filling line, including weighing). Industrial setting.	PROC 9
Quality control	PROC 15
Use in closed process	PROC 1
Use in closed, continuous process with occasional controlled exposure	PROC 2
Use in closed batch process	PROC 3
Use in batch process where opportunity for exposure arises	PROC 4
Use of sodium nitrate (multistage and/or significant contact)	PROC 5
Use by tableting, compression, extrusion, palletisation	PROC 14
Use as laboratory reagent	PROC 15
Hand-mixing with intimate contact and only PPE available	PROC 19
Handling of solid inorganic substances at ambient temperature	PROC 26
Manual maintenance (cleaning and repair) of machinery	PROC 28
Treatment of articles by dipping and pouring	PROC 13
2.1 Environmental contributing scenario: Formulation or re-packing of Sodium Nitrate (ERC2;ERC3)	
Exposure assessment and risk characterization are not required for environment, in accordance with the ECHA Guidance on information requirements and chemical safety assessment, Part B: Hazard assessment	
2.2 Worker contributing scenario's	
Worker contributing scenario(s):	
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities. Industrial setting.	PROC 8a

Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at dedicated facilities. Industrial setting.	PROC 8b	
Transfer of substance into small containers (dedicated filling line, including weighing). Industrial setting.	PROC 9	
Quality control	PROC 15	
Use in closed process	PROC 1	
Use in closed, continuous process with occasional controlled exposure	PROC 2	
Use in closed batch process	PROC 3	
Use in batch process where opportunity for exposure arises	PROC 4	
Use of sodium nitrate (multistage and/or significant contact)	PROC 5	
Use by tableting, compression, extrusion, palletisation	PROC 14	
Use as laboratory reagent	PROC 15	
Hand-mixing with intimate contact and only PPE available	PROC 19	
Handling of solid inorganic substances at ambient temperature	PROC 26	
Treatment of articles by dipping and pouring	PROC 13	
2.2.1 Conditions of use		
Product characteristics		
• Concentration of substance: ≤ 100% (solid or liquid)		
Amount used (or contained in articles), frequency and duration of use/exposure		
• Duration of activity: ≤ 8 hours/day		
Technical and organisational conditions and measures		
• General ventilation: Basic general ventilation		
• Containment: No		
• Local exhaust ventilation: No		
• Handling: Keep/Store away from flammable/reducing/combustible materials		
• Occupational Health and Safety Management System: Basic		
Conditions and measures related to personal protection, hygiene and health evaluation		
• General: Work under a high standard of personal hygiene. Wash hands and face before breaks. When using the product, do not eat, drink or smoke.		
• Dermal Protection: Not needed		
• Eye Protection: Yes (chemical goggles or full face shield if splashing is possible)		
• Respiratory Protection: Not needed		
Other conditions affecting workers exposure		
• Place of use: Indoor		
2.2.2 Exposure and risks for workers		
The exposure concentrations and risk characterisation ratios (RCR)		
Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative*
*Conclusion on risk characterisation		
Eye, local		
As chemical goggles are worn (or full face shield), the risk of the substance for causing ocular effects is considered to be controlled.		
3. Exposure scenario 3: Use at industrial site - Industrial use of sodium nitrate for intermediate use and		

end-use in industrial settings, including distribution and other activities related to the processes in industrial settings

3. Use at industrial site - Industrial use of sodium nitrate for intermediate use and end-use in industrial settings, including distribution and other activities related to the processes in industrial settings

Product category / UCN code:

- PC 1, Adhesives, sealants
- PC 4, Anti-Freeze and de-icing products
- PC 11, Explosives
- PC 12, Fertilizers
- PC 14, Metal surface treatment products, including galvanic and electroplating products
- PC 16, Heat transfer fluids
- PC 17, Hydraulic fluids
- PC 20, Products such as pH-regulators, flocculants, precipitants, neutralization agents
- PC 35, Washing and cleaning products (including solvent based products)
- PC 37, Water treatment chemicals
- PC 39, Cosmetics, personal care products
- K35000, Construction materials (building materials)
- S50200, Pyrotechnical products

Environment contributing scenario(s):

Industrial use of sodium nitrate for intermediate use and end-use in industrial settings, including distribution and other activities related to the processes in industrial settings	ERC 4; ERC 5; ERC 6a; ERC 6b; ERC 7
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Worker contributing scenario(s):

Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities. Industrial setting.	PROC 8a
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at dedicated facilities. Industrial setting.	PROC 8b
Transfer of substance into small containers (dedicated filling line, including weighing). Industrial setting.	PROC 9
Quality control	PROC 15
Use in closed process	PROC 1
Use in closed, continuous process with occasional controlled exposure	PROC 2
Use in closed batch process	PROC 3
Use in batch process where opportunity for exposure arises	PROC 4
Use of sodium nitrate (multistage and/or significant contact)	PROC 5
Use by spraying	PROC 7
Use by roller application or brushing	PROC 10
Use of blowing agents in manufacture of foam	PROC 12
Use by treatment of articles by dipping and pouring	PROC 13
Use by tableting, compression, extrusion, palletisation	PROC 14
Use by hand-mixing with intimate contact and only PPE available	PROC 19
Use in solar power plants (heat and pressure transfer fluids in dispersive, professional use but closed systems)	PROC 20
Use in solar power plants by potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting	PROC 22
Use in solar power plants by open processing and transfer operations with minerals/metals at elevated temperature	PROC 23
Use by high (mechanical) energy work-up of substances bound in materials and/or articles	PROC 24

Use by handling of solid inorganic substances at ambient temperature	PROC 26
Use as laboratory reagent	PROC 15
3.1 Environmental contributing scenario: Use at industrial site - Industrial use of sodium nitrate for intermediate use and end-use in industrial settings, including distribution and other activities related to the processes in industrial settings (ERC4;ERC5;ERC6a; ERC6b; ERC7)	
Exposure assessment and risk characterization are not required for environment, in accordance with the ECHA Guidance on information requirements and chemical safety assessment, Part B: Hazard assessment	
3.2 Worker contributing scenario's	
Worker contributing scenario(s):	
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities. Industrial setting.	PROC 8a
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Use by tableting, compression, extrusion, palletisation	PROC 14
Use by hand-mixing with intimate contact and only PPE available	PROC 19
Use in solar power plants (heat and pressure transfer fluids in dispersive, professional use but closed systems)	PROC 20
Use in solar power plants by potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting	PROC 22
Use in solar power plants by open processing and transfer operations with minerals/metals at elevated temperature	PROC 23
Use by high (mechanical) energy work-up of substances bound in materials and/or articles	PROC 24
Use by handling of solid inorganic substances at ambient temperature	PROC 26
Use as laboratory reagent	PROC 15
3.2.1 Conditions of use	
Product characteristics	
• Concentration of substance: ≤ 100% (solid or liquid)	
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 hours/day	
Technical and organisational conditions and measures	
• General ventilation: Basic general ventilation	

• Containment: No		
• Local exhaust ventilation: No		
• Handling: Keep/Store away from flammable/reducing/combustible materials		
• Occupational Health and Safety Management System: Basic		
Conditions and measures related to personal protection, hygiene and health evaluation		
• General: Work under a high standard of personal hygiene. Wash hands and face before breaks. When using the product, do not eat, drink or smoke.		
• Dermal Protection: Not needed		
• Eye Protection: Yes (chemical goggles or full face shield if splashing is possible)		
• Respiratory Protection: Not needed		
Other conditions affecting workers exposure		
• Place of use: Indoor		
3.2.2 Exposure and risks for workers		
The exposure concentrations and risk characterisation ratios (RCR)		
Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative*
*Conclusion on risk characterisation		
<u>Eye, local</u> As chemical goggles are worn (or full face shield), the risk of the substance for causing ocular effects is considered to be controlled.		
4. Exposure scenario 4: Use by professional worker - Professional use of sodium nitrate for formulation of preparations and end-use		
4. Professional use of sodium nitrate for formulation of preparations and end-use		
Product category / UCN code: PC 1, Adhesives, sealants PC 4, Anti-Freeze and de-icing products PC 11, Explosives PC 12, Fertilizers PC 14, Metal surface treatment products, including galvanic and electroplating products PC 16, Heat transfer fluids PC 17, Hydraulic fluids PC 20, Products such as pH-regulators, flocculants, precipitants, neutralization agents PC 37, Water treatment chemicals K35000, Construction materials (building materials) S50200, Pyrotechnical products		
Environment contributing scenario(s):		
Professional use of sodium nitrate for formulation of preparations and end-use	ERC 8a; ERC 8b; ERC 8c; ERC 8d; ERC 8e; ERC 8f; ERC 9a; ERC 9b	
Worker contributing scenario(s):		
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities. Professional setting.	PROC 8a	
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at dedicated facilities. Professional setting.	PROC 8b	
Transfer of substance into small containers (dedicated filling line, including weighing). Professional setting.	PROC 9	
Use in closed, continuous process with occasional controlled exposure	PROC 2	

Use in closed batch process	PROC 3
Use of the substance (multistage and/or significant contact)	PROC 5
Use by roller application or brushing	PROC 10
Use by spraying	PROC 11
Use by dipping and pouring	PROC 13
Use by hand-mixing with intimate contact and only PPE available	PROC 19
Use of functional fluids (heat and pressure transfer fluids in dispersive, professional use but closed system)	PROC 20
Use by handling of solid inorganic substances at ambient temperature	PROC 26
Use as laboratory reagent	PROC 15
4.1 Environmental contributing scenario: Professional use of sodium nitrate for formulation of preparations and end-use (ERC 8a; ERC 8b; ERC 8c; ERC 8d; ERC 8e; ERC 8f; ERC 9a; ERC 9b)	
Exposure assessment and risk characterization are not required for environment, in accordance with the ECHA Guidance on information requirements and chemical safety assessment, Part B: Hazard assessment	
4.2 Worker contributing scenario's	
Worker contributing scenario(s):	
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at non-dedicated facilities. Professional setting.	PROC 8a
Sampling, loading, filling, transfer, dumping, bagging of substance (charging/discharging) at dedicated facilities. Professional setting.	PROC 8b
Transfer of substance into small containers (dedicated filling line, including weighing). Professional setting.	PROC 9
Use in closed, continuous process with occasional controlled exposure	PROC 2
Use in closed batch process	PROC 3
Use of the substance (multistage and/or significant contact)	PROC 5
Use by roller application or brushing	PROC 10
Use by spraying	PROC 11
Use by dipping and pouring	PROC 13
Use by hand-mixing with intimate contact and only PPE available	PROC 19
Use of functional fluids (heat and pressure transfer fluids in dispersive, professional use but closed system)	PROC 20
Use by handling of solid inorganic substances at ambient temperature	PROC 26
Use as laboratory reagent	PROC 15
4.2.1 Conditions of use	
Product characteristics	
• Concentration of substance: ≤ 100% (solid or liquid)	
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 hours/day	
Technical and organisational conditions and measures	
• Containment: No	
• Local exhaust ventilation: No	
• Handling: Keep/Store away from flammable/reducing/combustible materials	
• Occupational Health and Safety Management System: Basic	
Conditions and measures related to personal protection, hygiene and health evaluation	

• General: Work under a high standard of personal hygiene. Wash hands and face before breaks. When using the product, do not eat, drink or smoke.		
• Dermal Protection: Not needed		
• Eye Protection: Yes (chemical goggles or full face shield if splashing is possible)		
• Respiratory Protection: Not needed		
Other conditions affecting workers exposure		
• Place of use: Indoor and/or outdoor		
4.2.2 Exposure and risks for workers		
The exposure concentrations and risk characterisation ratios (RCR)		
Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative*
*Conclusion on risk characterisation		
Eye, local As chemical goggles are worn (or full face shield), the risk of the substance for causing ocular effects is considered to be controlled.		
5. Exposure scenario 5: Consumer Use - Consumer end-use of sodium nitrate		
5. Consumer end-use of sodium nitrate		
Product category / UCN code: PC 1, Adhesives, sealants PC 4, Anti-Freeze and de-icing products PC 12, Fertilizers PC 16, Heat transfer fluids PC 17, Hydraulic fluids PC 35, Washing and cleaning products (including solvent based products) PC 39, Cosmetics, personal care products K35000, Construction materials (building materials) S50200, Pyrotechnical products		
Environment contributing scenario(s):		
Consumer end-use of sodium nitrate	ERC 8a; ERC 8b; ERC 8c; ERC 8e; ERC 8f; ERC 9a; ERC 9b; ERC 10a; ERC 11a	
Consumer contributing scenario(s):		
Consumer end-use of sodium nitrate		
5.1 Environmental contributing scenario: Professional use of sodium nitrate for formulation of preparations and end-use (ERC 8a; ERC 8b; ERC 8c; ERC 8d; ERC 8e; ERC 8f; ERC 9a; ERC 9b; ERC 10a; ERC 11a)		
Exposure assessment and risk characterization are not required for environment, in accordance with the ECHA Guidance on information requirements and chemical safety assessment, Part B: Hazard assessment		
5.2 Consumer contributing scenario's		
Consumer end-use of sodium nitrate		
5.2.1 Conditions of use		
Product characteristics		
• Concentration of substance: ≤ 100% (solid or liquid)		
Amount used (or contained in articles), frequency and duration of use/exposure		
• Duration of activity: ≤ 8 hours/day		

Technical and organisational conditions and measures		
• Containment: No		
Conditions and measures related to personal protection, hygiene and health evaluation		
• General: Work under a high standard of personal hygiene. Wash hands and face before breaks. When using the product, do not eat, drink or smoke.		
• Dermal Protection: Not needed		
• Eye Protection: Chemical goggles or safety glasses with side shields (when the concentration of the substance is $\geq 10\%$)		
• Respiratory Protection: Not needed		
Other conditions affecting consumers exposure		
• Instructions: Product labelling, showing that the product causes serious eye irritation (when the concentration of the substance is $\geq 10\%$)		
• Place of use: Indoor and/or outdoor		
5.2.2 Exposure and risks for workers		
The exposure concentrations and risk characterisation ratios (RCR)		
Route of exposure and type of effects	Exposure concentration	Risk characterisation
Eye, local		Qualitative*
*Conclusion on risk characterisation		
<u>Eye, local</u>		
As chemical goggles or safety glasses with side shields are worn (when the concentration of the substance is 10% or more), the risk of the substance for causing ocular effects is considered to be controlled		