

Sodium nitrate

31440-100G

Version 1.4

Revision Date 24.01.2021

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

1.1. Product identifier

Product name : Sodium nitrate
SDS-number : 000000020863
Type of product : Substance
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.

Chemical name : Sodium nitrate
CAS-No. : 7631-99-4
REACH Registration Number : no data available

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

Use of the Substance/Mixture : Laboratory chemicals
Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :
For further information, please contact: : SafetyDataSheet@Honeywell.com

1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)
Country based Poison Control Center : see chapter 15.1

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SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Oxidizing solids Category 3
H272 May intensify fire; oxidizer.
Eye irritation Category 2
H319 Causes serious eye irritation.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:	
Signal word	:	Warning
Hazard statements	:	H272 May intensify fire; oxidizer. H319 Causes serious eye irritation.
Precautionary statements	:	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 Wear protective gloves/ eye protection/ face 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. P308 + P313 IF exposed or concerned: Get medical advice/ attention.

2.3. Other hazards

None known. Results of PBT and vPvB assessment, see chapter 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substance

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Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Sodium nitrate	7631-99-4 231-554-3	Ox. Sol. 3; H272 Eye Irrit. 2; H319	100 %	

3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

If inhaled, remove to fresh air. Call a physician if irritation develops or persists. If breathing is difficult, give oxygen.

Skin contact:

After contact with skin, wash immediately with plenty of water.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye. Remove contact lenses. Consult a physician.

Ingestion:

When swallowed, allow water to be drunk. Call a physician immediately.

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

No data available

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

Treat symptomatically.

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See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam
Carbon dioxide (CO₂)
Water spray
Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.

Fire may cause evolution of:

Oxygen
nitrogen oxides

In fires, the product supports combustion.

Fire or intense heat may cause violent rupture of packages.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

No unprotected exposed skin areas.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Do not use a solid water stream as it may scatter and spread fire. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Wear personal protective equipment. Unprotected persons must be kept away. Avoid contact with skin, eyes and clothing. Avoid dust formation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.

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6.3. Methods and materials for containment and cleaning up

Use mechanical handling equipment.
Pick for disposal in tightly closed containers
Do not pick up with the help of saw-dust or other combustible substances.

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary. Avoid dust formation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Keep limited supplies at workplace. Never return unused material to storage receptacle.

Advice on protection against fire and explosion:

Keep away from combustible material. The product itself does not burn.

Hygiene measures:

Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Store in original container. Keep container tightly closed in a dry and well-ventilated place. Store in a place accessible by authorized persons only.

Further information on storage conditions:

Avoid product residues in/on containers. Protect from atmospheric moisture and water. Do not leave vessels/containers open

7.3. Specific end use(s)

no additional data available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

DNEL/ PNEC-Values

No DNEL-data available.

Component	Environmental compartment / Value	Remarks
Sodium nitrate	Sewage treatment plant: 18 mg/l	Assessment factor: 10

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.
Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures

Use with local exhaust ventilation.

Personal protective equipment

Respiratory protection:

In the case of dust or aerosol formation use respirator with an approved filter.

Recommended Filter type:

Half mask with a particle filter P2 (EN 143)

Hand protection:

Glove material: Natural Latex

Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

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Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer´s directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Safety goggles

Skin and body protection:

Wear suitable protective equipment.

Lab coat

Protective suit

Working clothes must not consist of textiles, which show a dangerous melting behaviour in case of fire.

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	solid
Colour	:	colourless
Odour	:	odourless
molecular weight	:	84,99 g/mol
Melting point/range	:	308 °C
Boiling point/boiling range	:	Not applicable Decomposes on heating.
Flammability	:	The product is not flammable.

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Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Flash point	:	Not applicable
Ignition temperature	:	Not applicable
Decomposition temperature	:	380 °C
pH	:	5,0 - 7,0 at 20 °C (as aqueous solution)
Auto-ignition temperature	:	not auto-flammable
Viscosity, kinematic	:	Not applicable
Water solubility	:	883,0 g/l at 20 °C
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	No data available
Density	:	ca. 2,26 g/cm ³ at 20 °C
Bulk density	:	ca. 1.300 - 1.500 kg/m ³
Relative vapour density	:	No data available

9.2 Other Information

Oxidizing properties	:	The substance or mixture is classified as oxidizing with the category 3.
Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

380 °C
Decomposition temperature

10.3. Possibility of hazardous reactions

Mixtures of inflammable substances are easily combustible and burn vigorously even under exclusion of air.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.
Keep away from reducing agents.
Avoid contact with combustible material (paper, wool, oil).
Avoid dust formation.

10.5. Incompatible materials

Reactions with metals in powder form.
Reactions with organic substances.
Reducing agents
Mixtures of inflammable substances are easily combustible and burn vigorously even under exclusion of air.
As oxidising agent, attacks organic substances such as wood, paper, fats.

10.6. Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as:
Sodium oxides
Nitrogen oxides (NO_x)
Oxygen

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:
LD50

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according to Regulation (EC) No. 1907/2006

Honeywell
Fluka™

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Species: Rat
Sex: male and female
Value: ca. 3.430 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity:

LD50
Species: Rat
Sex: male and female
Value: > 5.000 mg/kg
Method: OECD Test Guideline 402
REACH dossier "read-across"

Acute inhalation toxicity:

No data available

Skin irritation:

Species: Rabbit
Result: non-irritant
Method: OECD Test Guideline 404
REACH dossier "read-across"

Eye irritation:

Species: Rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405

Respiratory or skin sensitisation:

Local lymph node assay (LLNA)
Route of exposure: Dermal
Species: Mouse
Result: non-sensitizing
Method: OECD Test Guideline 429

Repeated dose toxicity:

Species: Rat, male and female
Application Route: Oral
Exposure time: 28 d
NOAEL \geq 1.500 mg/kg
Method: OECD Test Guideline 422
Note: REACH dossier "read-across"

Carcinogenicity:

Note: Not classified due to data which are conclusive although insufficient for classification.

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Germ cell mutagenicity:

Test Method: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

Method: OECD Test Guideline 471

Reproductive toxicity:

Remarks: Not classified due to data which are conclusive although insufficient for classification.

Aspiration hazard:

No data available

11.2. Information on other hazards

Endocrine disrupting properties

No data available

Other information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

Not classified due to data which are conclusive although insufficient for classification.

Toxicity to aquatic plants:

EC50

static test

Species: algae

Value: > 1.700 mg/l

Exposure time: 10 d

REACH dossier "read-across"

Toxicity to Microorganisms:

EC50

Respiration inhibition

Species: activated sludge

Value: > 1.000 mg/l

Exposure time: 180 min

Method: OECD Test Guideline 209

Toxicity to aquatic invertebrates:

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EC50
static test
Species: Daphnia magna (Water flea)
Value: 8.609 mg/l
Exposure time: 24 h
Method: OECD Test Guideline 202

12.2. Persistence and degradability

Biodegradability:

The methods for determining biodegradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Not applicable

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

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For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:1498

IMDG:1498

IATA:1498

14.2 UN proper shipping name

ADR/RID:SODIUM NITRATE

IMDG:SODIUM NITRATE

IATA:Sodium nitrate

14.3 Transport hazard class(es)

ADR/RID: 5.1

IMDG: 5.1

IATA: 5.1

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID:no

Marine pollutant: no

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC SEVESO III Listed in Regulation : P8: Oxidizing liquids and solids Number in Regulation: 1.2.8	Quantity: 50.000 kg Quantity: 200.000 kg	
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

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Regulation (EU) 2019/1148 on the marketing and use of explosives precursors		Contains components listed in
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Poison Control Center

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	808250143
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation); +46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

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Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Sodium nitrate : H272 May intensify fire; oxidizer.
H319 Causes serious eye irritation.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

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Abbreviations:

EC European Community

CAS Chemical Abstracts Service

DNEL Derived no effect level

PNEC Predicted no effect level

vPvB Very persistent and very bioaccumulative substance

PBT Persistent, bioaccumulative und toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.

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