



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

SODIUM NITRATE 99% AR

PRODUCT CODE : O-5197

CAS No : 7631-99-4

FORMULA : NaNO_3

UN No : 1498

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SODIUM NITRATE 99%AR



MSDS Number : 0350

Date : Sept 2nd, 2024

Version : 1.0

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

- 1.1 Product Name** : SODIUM NITRATE 99% AR
Synonyms : Nitric acid sodium salt
CAS No. : 7631-99-4
HS Code : 3102 50 00
Molecular Weight : 84.99 g/mol
Chemical Formula : NaNO_3
Product Code : O-5197
Brand : Labotiq
- 1.2 Manufacturer** : Labotiq
Address : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
Website : www.labotiq.net
Email : labotiq.id@gmail.com
For information : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
Emergency number : +6281316894650
- 1.3 Application** : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Oxidizing solids (Category 3), H272

Eye irritation (Category 2), H319

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H272

May intensify fire; oxidizer.

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.

P264

Wash skin thoroughly after handling.

P280

Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

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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.

Supplemental Hazard Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Nitric acid sodium salt
Formula	: NaNO ₃
Molecular weight	: 84.99 g/mol
CAS-No.	: 7631-99-4
EC-No.	: 231-554-3
Index-No.	: -

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Sodium nitrate CAS-No. 7631-99-4 EC-No. 231-554-3	Ox. Sol. 3; Eye Irrit. 2; H272, H319	<=100 %

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

show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 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.

5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x), Sodium oxides, Not combustible.

Has a fire-promoting effect due to release of oxygen. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus

5.4 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

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 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.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

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Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

Tightly closed. Do not store near combustible materials.

Storage class

Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Ingredients with workplace control parameters****8.2 Exposure controls****Appropriat 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**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril® (KCL 740, Size M)

Body Protection

protective clothing

Respiratory protection

required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other

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accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: solid
Odour	odorless
Odour Threshold	Not applicable
pH	5,5 - 8,0 at 50 g/l at 20 °C
Melting point/freezingpoint	Melting point/range: 306 °C - dec
Initial boiling point and boiling range	380 °C
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	2,26 g/cm ³ at 20 °C
Water solubility	874 g/l at 20 °C - soluble
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 3.

9.2 Other safety information

Relative vapor density	Not applicable
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SECTION 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

Risk of explosion with:

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Powdered metals, aluminium oxide boron phosphide, Cyanides, Acetic anhydride, sodium phosphite, sodium thiosulphate, performic acid sulfur, Polyvinyl chloride
Risk of ignition or formation of inflammable gases or vapours with:

Risk of explosion with:
organic combustible substances, oxidisable substances, carbon, Arsenic oxides

10.4 Conditions to avoid

Fusion of mixtures of metal cyanides, including lead thiocyanate, with metal chlorates, perchlorates, nitrates or nitrites causes a violent explosion. Addition of one solid component (even as a residue in small amount) to another molten component is also highly dangerous. Heat. no information available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - male and female - 3.430 mg/kg (OECD Test Guideline 401)
Symptoms: Irritation of mucous membranes, Nausea, Vomiting, Diarrhea
Symptoms: Possible damages:, mucosal irritations
LD50 Dermal - Rat - male and female - > 5.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit
Result: No skin irritation - 4 h (OECD Test Guideline 404)
Remarks: (in analogy to similar products)
The value is given in analogy to the following substances: Ammonium nitrate

Serious eye damage/eye irritation

Eyes - Rabbit
Result: irritating (OECD Test Guideline 405)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse
Result: negative (OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test): chromosome aberration.
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Test Type: Mutagenicity (mammal cell test): chromosome aberration.
Test system: Chinese hamster fibroblasts
Metabolic activation: without metabolic activation
Result: positive Remarks: (ECHA)
Test Type: Ames test

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Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available(Sodium nitrate)

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available(Trichloroacetic acid)

Additional Information

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 28 d - NOAEL (No observed adverse effect level) - ≥ 1.500 mg/kg Remarks: (in analogy to similar products) The value is given in analogy to the following substances: potassium nitrate

RTECS: WC5600000

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After absorption of large quantities: Methaemoglobinaemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, and spasms, key symptom: cyanosis (blue colouration of the blood). The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice

SECTION 12: Ecological information**12.1 Toxicity****Toxicity to daphnia and other aquatic invertebrates**

EC50 - Daphnia magna (Water flea) - 3.581 mg/l - 48 h Remarks: (IUCLID)

Toxicity to algaestatic test EC50 - diatoms - > 1.700 mg/l - 10 Days Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: potassium nitrate

Toxicity to bacteriastatic test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)

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12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available(Sodium nitrate)

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

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: Trinitrophenol, wetted

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

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

Further information

No data available

SECTION 15: Regulatory information

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

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

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

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

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

National Fire Protection Association (U.S.A.):

Health: 1
Flammability: 0
Reactivity: 0

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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