

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 12.05.2014

Version 12.0

SECTION 1. Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Catalogue No.	106537
Product name	Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur
REACH Registration Number	A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS-No.	7631-99-4

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

Identified uses	Reagent for analysis For additional information on uses please refer to the Merck Chemicals portal (www.merck-chemicals.com).
-----------------	---

1.3 Details of the supplier of the safety data sheet

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone:+49 6151 72-0
Responsible Department	EQ-RS * e-mail: prodsafe@merckgroup.com

1.4 Emergency telephone number **Please contact the regional company representation in your country.**

SECTION 2. Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Oxidising solid, Category 3, H272

Acute toxicity, Category 4, Oral, H302

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

Classification (67/548/EEC or 1999/45/EC)

O	Oxidising	R8
Xn	Harmful	R22

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)***Hazard pictograms**Signal word*

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

Warning

Hazard statements

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

Precautionary statements

Prevention

P260 Do not breathe dust.

Reduced labelling (≤125 ml)

Hazard pictograms



Signal word

Warning

CAS-No. 7631-99-4

2.3 Other hazards

None known.

SECTION 3. Composition/information on ingredients

3.1 Substance

Formula	NaNO ₃	NNaO ₃ (Hill)
EC-No.	231-554-3	
Molar mass	84,99 g/mol	

Hazardous components (REGULATION (EC) No 1272/2008)

Chemical Name (Concentration)

CAS-No.	Registration number	Classification
---------	---------------------	----------------

sodium nitrate (≤ 100 %)

7631-99-4 *)

Oxidising solid, Category 3, H272

Acute toxicity, Category 4, H302

*) A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Hazardous components (1999/45/EC)

Chemical Name (Concentration)

CAS-No.	Classification
---------	----------------

sodium nitrate (≤ 100 %)

7631-99-4 O, Oxidising; R8

Xn, Harmful; R22

For the full text of the R-phrases mentioned in this Section, see Section 16.

3.2 Mixture

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

not applicable

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air.

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

After eye contact: rinse out with plenty of water.

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

4.2 Most important symptoms and effects, both acute and delayed

irritant effects, Diarrhoea, Nausea, Vomiting

The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities.

4.3 Indication of any immediate medical attention and special treatment needed

No information 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

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapours.

Fire may cause evolution of:

nitrogen oxides, nitrous gases

5.3 Advice for firefighters

Special protective equipment for firefighters

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

Further information

Suppress (knock down) gases/vapours/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 substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

6.2 Environmental precautions

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

Do not empty into 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

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Observe label precautions.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Away from combustible substances.

Recommended storage temperature see product label.

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

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

Break through time: > 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment

protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances

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.

Environmental exposure controls

Do not empty into drains.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	colourless
Odour	odourless
Odour Threshold	not applicable
pH	5,5 - 8,0 at 50 g/l 20 °C
Melting point	308 °C
Boiling point/boiling range	not applicable
Flash point	does not flash
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	not applicable
Upper explosion limit	not applicable

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

Vapour pressure	No information available.
Relative vapour density	not applicable
Density	2,26 g/cm ³ at 20 °C
Relative density	No information available.
Water solubility	874 g/l at 20 °C
Partition coefficient: n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	> 380 °C
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	May intensify fire; oxidiser. The substance or mixture is classified as oxidizing with the category 3.

9.2 Other data

Ignition temperature	not applicable
Bulk density	ca. 1.200 kg/m ³

SECTION 10. Stability and reactivity

10.1 Reactivity

See section 10.3

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Risk of explosion with:

Powdered metals, aluminium oxide, boron phosphide, Cyanides, Acetic anhydride, sodium phosphite, sodium thiosulphate, performic acid, sulfur, Polyvinylchloride

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

Heating (decomposition).

10.5 Incompatible materials

no information available

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

10.6 Hazardous decomposition products
in the event of fire: See section 5.

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

LD50 rat: 1.267 mg/kg (RTECS)

Symptoms: Irritation of mucous membranes, Nausea, Vomiting, Diarrhoea
absorption

Acute inhalation toxicity

Symptoms: slight mucosal irritations

Acute dermal toxicity

This information is not available.

Skin irritation

This information is not available.

Eye irritation

slight irritation

Sensitisation

This information is not available.

Germ cell mutagenicity

This information is not available.

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

11.2 Further information

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

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

Toxicity to fish

LC50 Ictalurus catus (catfish): 6.200 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

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

12.2 Persistence and degradability

Biodegradability

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

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

Additional ecological information

Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information

Land transport (ADR/RID)

14.1 UN number	UN 1498
14.2 Proper shipping name	SODIUM NITRATE
14.3 Class	5.1
14.4 Packing group	III
14.5 Environmentally hazardous	--
14.6 Special precautions for user	yes
Tunnel restriction code	E

Inland waterway transport (ADN)

Not relevant

Air transport (IATA)

14.1 UN number	UN 1498
14.2 Proper shipping name	SODIUM NITRATE
14.3 Class	5.1
14.4 Packing group	III
14.5 Environmentally hazardous	--
14.6 Special precautions for user	no

Sea transport (IMDG)

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

14.1 UN number UN 1498
14.2 Proper shipping name SODIUM NITRATE
14.3 Class 5.1
14.4 Packing group III
14.5 Environmentally hazardous --
14.6 Special precautions for user yes
EmS F-A S-Q
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant

SECTION 15. Regulatory information

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

EU regulations

Major Accident Hazard Legislation 96/82/EC
Oxidising
3
Quantity 1: 50 t
Quantity 2: 200 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $\geq 0.1\%$ (w/w).

National legislation

Storage class 5.1B

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

Catalogue No. 106537
Product name Sodium nitrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur

SECTION 16. Other information

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

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.



Full text of R-phrases referred to under sections 2 and 3

R 8 Contact with combustible material may cause fire.
R22 Harmful if swallowed.

Training advice

Provide adequate information, instruction and training for operators.

Labelling (67/548/EEC or 1999/45/EC)

<i>Symbol(s)</i>	 O	Oxidising
	 Xn	Harmful
<i>R-phrase(s)</i>	8-22	Contact with combustible material may cause fire. Harmful if swallowed.
<i>S-phrase(s)</i>	22-41	Do not breathe dust. In case of fire and/or explosion do not breathe fumes.
EC-No.	231-554-3	

Reduced labelling (≤125 ml)

<i>Symbol(s)</i>	 O	Oxidising
	 Xn	Harmful
<i>R-phrase(s)</i>	22	Harmful if swallowed.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Regional representation

This information is given on the authorised Safety Data Sheet for your country.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.