NEPHELINE SYENITE

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS ID: SB00132
Revision date: 19/08/2025 Supersedes version of: 16/01/2025 Version: 10.0

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

1.1. Product identifier

Product form	:	Substance
Name	:	Nepheline syenite
Trade name	:	NEPHELINE SYENITE
EC-No.	:	609-369-8
CAS-No.	:	37244-96-5
Product code	:	Nepheline 350/500 LI DS, Nepheline 350/N500 DS, Nepheline 364 DS, Nepheline AG10N PO, Nepheline AG20N PO, Nepheline AG20ND PO, Nepheline D45 PO, Nepheline D75 PO, Nepheline N20 PO, Nepheline N45 PO, Nepheline N75 PO, Nepheline S4 PO, Nepheline S6 PO, Nepheline S7 PO, Nepheline S10 PO, Nepheline VR5 PO, Nepheline VR7 PO, Nepheline VR13 PO, Nepheline VR34 PO, Nepheline VR190 PO
Synonyms	:	Nepheline syenite, anhydrous sodium potassium alumino silicate, sodium potasium aluminosilicate, inorganic feldspatic mineral
REACH registration exemptions	:	Comments: Exempted in accordance with Annex V.7

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

Relevant identified uses

Use of the substance/mixture	:	Coatings, Paints, Plastics, Ceramics, Glass.

Uses advised against

Restrictions on use	:	This product must not be used in applications other than those identified above, without first seeking advice of the supplier

1.3. Details of the supplier of the safety data sheet

Legal entity
SCR-Sibelco NV N.V.
Plantin en Moretuslei 1A
BE 2018 Antwerpen
Belgium

Contact details
Sibelco
Op de Bos 300
NL 6223 EP Maastricht
Netherlands
T +31 (0)43 7995002
customersupport.nl@sibelco.com

Contact details
Sibelco Deutschland GmbH
Sälzerstrasse 20
DE 56235 Ransbach-Baumbach
Deutschland
T +49 2623 8669010
customersupport.de@sibelco.com

Contact details
Sibelco Nordic AS
Vanylvsvegen 2955
6146 Aaheim
Norway
T +47 32 99 48 00
customersupport.nordic@sibelco.com

Contact details
Sibelco
De Zate 1
BE 2480 Dessel
Belgium
T +32 14 83 7211
customersupport.be@sibelco.com

Contact details
Sibelco Italy
Viale Dino Ferrari 75/83
Maranello
IT 41053 Modena
Italy
T +39 052 2144 8000
customersupport.it@sibelco.com

Contact details
Sibelco Spain
Carretera nacional 340, Km 953
ES 12520 Nules (Castellón)
Spain
T +34 96 467 08 01
customersupport.es@sibelco.com

1.4. Emergency telephone number

Emergency number : Sibelco: +31 43 3663755
(during office hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

Depending on the type of handling and use, airborne dust may be generated. Occupational exposure to dust should be monitored and controlled. This product should be handled with care to avoid dust generation.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards which do not result in classification : No other hazards identified.

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other information : This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

SECTION 3: Composition/information on ingredients

3.1. Substances

Comments : UVCB
{0} Main constituents are feldspar group minerals (CAS# 68476-25-5) and feldspathoid nepheline (CAS# 12251-27-3)

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nepheline syenite	CAS-No.: 37244-96-5 EC-No.: 609-369-8 REACH-no: E*	100	Not classified

Comments : * E: Exempted from REACH registration

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : No hazards which require special first aid measures.

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air.

First-aid measures after skin contact : No special first aid measures necessary. Wash skin with soap and water. Use suitable lotion to moisturise skin.

First-aid measures after eye contact : Rinse with copious quantities of water and seek medical attention if irritation persists.

First-aid measures after ingestion : No first aid measure required. Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/effects : No acute and delayed symptoms and effects are observed.

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

No special first aid measures necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : No specific extinguishing media is needed.
Unsuitable extinguishing media : No restriction on the extinguishing media to be used.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not combustible.
Hazardous decomposition products in case of fire : No hazardous thermal decomposition.

5.3. Advice for firefighters

Protection during firefighting : No specific fire-fighting protection is required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid airborne dust generation, wear respiratory personal protective equipment in compliance with national legislation, see EN 143: 2021. CAUTION!. Material becomes extremely slippery when wet.

6.2. Environmental precautions

No special requirements. Collect spillage. Accidental release measures (Road transport): Secure road and warn other road users. Use a suitable vacuum cleaner.

6.3. Methods and material for containment and cleaning up

For containment : Avoid dry sweeping and use water spraying or vacuum cleaning systems (with high-efficiency particulate air filter) to prevent airborne dust generation. Wear personal protective equipment in compliance with national legislation.

6.4. Reference to other sections

See sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Prevent slurry spillage from process equipment. Avoid airborne dust generation. Provide appropriate exhaust ventilation at places where airborne dust is generated. Other suitable controls may include enclosure, isolation, water suppression, respiratory protective equipment. Handle packaged products carefully to prevent accidental bursting. If you require advice on safe handling techniques, please contact your supplier.

Hygiene measures : Do not eat, drink and smoke in work areas; wash hands after use; remove contaminated clothing and protective equipment before entering eating areas. Shower and change clothes at end of work shift.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Minimise airborne dust generation and prevent wind dispersal during loading and unloading. Keep containers closed and store packaged products so as to prevent accidental bursting. Store in a dry covered area.

7.3. Specific end use(s)

If you require advice on specific uses, please contact your supplier or check the Good Practice Guide referred to in section 16.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Refer to European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) or equivalent national standard(s). Refer to European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) or equivalent national standard(s). Refer to European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) or equivalent national standard(s).

DNEL and PNEC

Additional information : Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust). For the equivalent limits in other countries, please consult a competent occupational hygienist or the local regulatory authority.

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Minimise airborne dust generation. Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below specified exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne particles below the exposure limit. Apply organisational measures, e.g. by isolating personnel from dusty areas. Remove and wash soiled clothing.

Personal protection equipment

Personal protective equipment:
Safety glasses. Dust formation: dust mask.
Personal protective equipment symbol(s):



Eye and face protection

Eye protection:
Wear safety glasses with side-shields in circumstances where there is a risk of penetrative eye injuries.

Skin protection

Skin and body protection:
No specific requirement. Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

Hand protection:
Appropriate protection (e.g. gloves, barrier cream) is recommended for workers who suffer from dermatitis or sensitive skin. Wash hands at the end of each work session.

Respiratory protection

Respiratory protection:
In case of prolonged exposure to airborne dust concentrations, wear a respiratory protective equipment that complies with the requirements of European or national legislation. The use of half or full face masks with filters against particles of category 3 (FP3) is recommended. See EN 143: 2021 - Respiratory protective devices. Particle filters

Environmental exposure controls

Environmental exposure controls:
Avoid wind dispersal.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	White, Off-white
Appearance	:	Powder, Granules, (sub-angular)
Odour	:	Odourless
Melting point	:	1250 – 1300 °C
Freezing point	:	Not available
Boiling point	:	Not applicable (solid with a melting point >450 °C)
Flammability	:	Not flammable
Explosive properties	:	Not applicable (not flammable)
Oxidising properties	:	Non oxidizing
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable (solid with a melting point >450 °C)
Auto-ignition temperature	:	Not applicable (not flammable)
Decomposition temperature	:	Not applicable (solid with a melting point >450 °C)
pH	:	10.3 (40% aqueous dispersion @20°C)
pH solution	:	Not available
Viscosity, kinematic	:	Not applicable (solid with a melting point >450 °C)
Viscosity, dynamic	:	Not applicable (solid with a melting point >450 °C)
Solubility	:	Water: Negligible, Hydrofluoric acid: Soluble
Partition coefficient n-octanol/water (Log Pow)	:	Not applicable (solid inorganic substance)
Vapour pressure	:	Not applicable
Density	:	2.6 g/cm³
Relative density	:	No information available
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available

9.2. Other information

Other safety characteristics

Relative evaporation rate (butylacetate=1)	:	Not applicable (solid with a melting point >450 °C)

SECTION 10: Stability and reactivity

10.1. Reactivity

Inert, not reactive.

10.2. Chemical stability

Chemically stable.

10.3. Possibility of hazardous reactions

No hazardous reactions.

10.4. Conditions to avoid

Not relevant.

10.5. Incompatible materials

No particular incompatibility.

10.6. Hazardous decomposition products

Not relevant.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Based on available data, the classification criteria are not met
Acute toxicity (dermal) : Based on available data, the classification criteria are not met
Acute toxicity (inhalation) : Based on available data, the classification criteria are not met

Nepheline syenite (37244-96-5)	
LD50 oral rat	> 2000 mg/kg (OECD 420 method) Read across: Feldspar
LD50 dermal rat	> 2000 mg/kg (OECD 402 method) Read across: Feldspar

Skin corrosion/irritation : Based on available data, the classification criteria are not met. Read across: Feldspar. Feldspar is not irritating to skin (OECD 404, rabbit)
pH: 10.3 (40% aqueous dispersion @20°C)

Serious eye damage/irritation : Based on available data, the classification criteria are not met. Read across: Feldspar. Feldspar is not irritating to eye (OECD 405, rabbit)
pH: 10.3 (40% aqueous dispersion @20°C)

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met. Read across: Feldspar

Germ cell mutagenicity : Based on available data, the classification criteria are not met. Read across: Feldspar. No mutagenic effect (OECD 471, OECD 490)

Carcinogenicity : Based on available data, the classification criteria are not met

Nepheline syenite (37244-96-5)	
IARC group	Based on available data, the classification criteria are not met

Reproductive toxicity : Based on available data, the classification criteria are not met
STOT-single exposure : Based on available data, the classification criteria are not met. Read across: Feldspar
STOT-repeated exposure : Based on available data, the classification criteria are not met
Aspiration hazard : Based on available data, the classification criteria are not met

Nepheline syenite (37244-96-5)	
Viscosity, kinematic	Not applicable (solid with a melting point >450 °C)

11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : Contains no substances identified as having endocrine disrupting properties

Other information

Potential adverse human health effects and symptoms : Prolonged and/or excessive exposure to respirable dust may cause mucous membrane and respiratory irritation and lung injury with symptoms of shortness of breath and reduced pulmonary function. Inhalation of dust may cause irritation of nose, throat and respiratory passages.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not relevant
Hazardous to the aquatic environment, long–term (chronic) : Not relevant

12.2. Persistence and degradability

Nepheline syenite (37244-96-5)	
Persistence and degradability	Substance is inorganic and therefore not subject to biodegradation.

12.3. Bioaccumulative potential

Nepheline syenite (37244-96-5)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable (solid inorganic substance)
Bioaccumulative potential	Not relevant. Bioaccumulation unlikely.

12.4. Mobility in soil

Nepheline syenite (37244-96-5)	
Mobility in soil	Negligible

12.5. Results of PBT and vPvB assessment

Nepheline syenite (37244-96-5)	
Results of PBT assessment	Not relevant

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : Contains no substances identified as having endocrine disrupting properties.

12.7. Other adverse effects

Other adverse effects : No specific adverse effects known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Where possible recycling is preferred to disposal.

Product/Packaging disposal recommendations : Store used packaging in enclosed receptacles. Recycling and disposal of packaging should be carried out in compliance with local regulations. The re-use of packaging is not recommended. Recycling and disposal of packaging should be carried out by an authorised waste management company.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport (ADR)
Not regulated

Transport by sea (IMDG)
Not regulated

Air transport (IATA)
Not regulated

Inland waterway transport (ADN)
Not regulated

Rail transport (RID)
Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the Canadian DSL (Domestic Substances List)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.2. Chemical safety assessment

Exempted from REACH Registration in accordance with Annex V.7 of Regulation (EC) 1907/2006

SECTION 16: Other information

Indication of changes		
Section	**Changed item**	**Comments**
1.3	Contact details	**Modified**

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very Persistent and Very Bioaccumulative
LC50	Median lethal concentration
LD50	Median lethal dose
OECD	Organisation for Economic Co-operation and Development
PNEC	Predicted No-Effect Concentration
DNEL	Derived-No Effect Level
SDS	Safety Data Sheet

Training advice : Workers must be trained in the proper use and handling of this product as required under applicable regulations.

Third party materials : Insofar as materials not manufactured or supplied by SCR-Sibelco NV are used in conjunction with, or instead of SCR-Sibelco NV materials, it is the responsibility of the customer himself to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of SCR-Sibelco NV's NEPHELINE SYENITE in conjunction with materials from another supplier.

Other information	:	Prolonged and/or excessive exposure to respirable dust may cause mucous membrane and respiratory irritation and lung injury with symptoms of shortness of breath and reduced pulmonary function. Inhalation of dust may cause irritation of nose, throat and respiratory passages. This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

SDS EU - SB

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.