

Section 1: Identification of the substance/mixture and of the company

1.1 Product identifier

Product name: NordBit S 124

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

Relevant identified use: See section 16.

Uses advised against: Other uses are not supported.

1.3 Details of the supplier of the safety data sheet

Supplier: NordBit GmbH & Co. KG
Pelzerstr. 4
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GERMANY

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1.4 Emergency telephone number

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Section 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to (EC) No. 1272/2008

This substance is not classified as hazardous according to (EC) No. 1272/2008.

2.2 Label elements

2.2.1 Labelling according to regulation (EC) No. 1272/2008

N/A

2.3 Other hazards

Contact with skin and eyes causes burns. The product may spontaneously combust if sprayed when hot. Product may release H₂S. H₂S is toxic, even in small concentrations. Product should be stored and transported at > 50 °C.

Section 3: Composition/information on ingredients

3.1 Substance

Component	Product identifier	% ¹⁾
Asphalt, oxidized	(EG No.) 265-196-4 (CAS No.) 64742-93-4 (REACH registration no.) 01-2119498270-36	100

¹⁾ Concentration is indicated in vol.-%.

Asphalt, oxidized. This material is a strong oxidative asphalt with a penetration index ≥ 2.0

3.2 Mixtures

N/A

Section 4: First aid measures

4.1 Description of first aid-measures

Inhalation: If breathing problems or other symptoms of exposure occur, remove affected person from the source of exposure and put into a comfortable position in the fresh air. If symptoms persist, seek medical attention immediately. If person is not breathing, initiate artificial respiration immediately. If person has respiratory problems oxygen should be supplied by qualified person.

Symptoms: Irritation of the respiratory tract due to excess fume, mists or vapour exposure.

Skin contact: Remove contaminated shoes and clothing and rinse affected area with water. If the skin surface is damaged, apply sterile cover and seek medical help. If the skin surface is not damaged, clean affected area thoroughly by washing with mild soap and water or a waterless hand cleanser. Never use gasoline, kerosene or other solvents for washing of contaminated skin. Do not put ice on the burn. DO NOT try to remove the substance from the skin, but cut around them. If irritation or redness develops, seek medical help. Clean contaminated clothing before reuse. If the product is injected into or under the skin or any body part, the person should be immediately examined by a physician, regardless of appearance and size of the wound. When in contact with hot product immediately flush with cold water with a duration of at least 5 minutes.

Symptoms: None expected at ambient temperature. Contact with hot/molten product will cause severe burns.

Eye contact: Flush eyes with clean water if irritation occurs. If symptoms persist, consult a doctor. After contact with the hot product immediately flush with cold water with a duration of at least 5 minutes. Try to keep the eyelids open. Irrigate with water only and take the casualty immediately to a doctor. Symptoms: Product at ambient temperature (dust): minimal redness and irritation. Contact with hot/molten product will cause severe burns.

Chocking: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause lung damage. If victim is drowsy or unconscious put person in safety position. If possible, do not leave the person unattended and continuously monitor breathing. Seek medical help. Symptoms: Few or no symptoms expected. If any, slight nausea might occur. Aspiration: Not applicable due to the physical state of oxidized bitumen.

4.2 Most important symptoms and effects, both acute and delayed

Individuals with pre-existing lung disorders may have increased susceptibility of the effects of exposure.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Symptomatic treatment. Oral ingestion of the product can be identified by the characteristic odor. When ingested, give no milk, alcohol or other degreasing agents. If necessary start oxygen breathing. On vomiting, danger of entering the lungs. Monitor circulatory system.

Section 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Foam (qualified personnel only), dry chemical, water spray/water fog (qualified personnel only), sand, CO₂, other inert gases (in accordance with applicable regulations).

Inappropriate extinguishing agents: Do not use water jet in order to prevent scatter and the spread of the fire. Do not use water and foam on the same surface, as water dissolves the foam.

5.2 Special hazards arising from the substance

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H₂S, SO_x (sulfur oxides) or sulfuric acid, unidentified organ-

ic and inorganic compounds. Contact of hot product with water will result in a violent expansion as the water turns to steam. This may cause splashing of hot product, or damage to, or complete loss of the tank roof. Respiratory problems or nausea by excessive exposure to hot product fumes.

5.3 Advice for fire-fighting

In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Cool down any tanks and surfaces exposed to fire by spraying abundantly with water. Use water to cool tanks and parts exposed to the thermal flux not caught up in the flames. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Isolate fire immediately, advice unauthorized people to leave the area. Remove undamaged container from danger zones if this can be done safely. Water spray may be useful to restrict the formation of vapor and to disperse it, and to protect persons. Avoid spreading burning liquid with cold water. Cool any equipment exposed to fire with water, if this can be done safely. See Section 9 for inflammatory properties, including flash point and flame (explosion)-limits.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Risk of slipping due to leakage / spillage of product.

Use personal heat resistant protective clothing, like work helmet with neck cloth, face shield, work gloves (preferably gauntlets), SCBA.

Keep ignition sources away.

6.2 Environmental precautions

Do not discharge into drains / surface water / ground water.

Prevent from spreading (e.g. by damming or sand).

Do not allow product to reach open waters the ground / soil.

6.3 Methods and materials for containment and cleaning up

Keep non-involved personnel away from the area.

Product can be removed by mechanical means when cooled down.

Eliminate all ignition sources if safe to do so (sparks, fires, electricity, etc.).

If required, notify relevant authorities.

6.4 Reference to other sections

Protection measures in section 7, 8 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid spilling the product. When using do not eat, drink or smoke.

Avoid eye and skin contact.

Keep ignition sources away - Do not smoke.

The product forms flammable vapours.

Avoid contact of hot bitumen with water.

Avoid local overheating.

Product may release hydrogen sulfide (H₂S): There should be a specific assessment of the risk of inhalation due to the presence of hydrogen sulfide.

7.2 Conditions for safe storage, including any incompatibilities

Storage installations should be designed with adequate bunds in case of leaks or spills. Keep container in a well-ventilated place. Selfheating leading to auto ignition at the surfaces of porous or fibrous materials impregnated with oils or bitumen, can occur at temperatures as low as 100 °C.

Prevent any seepage into the ground.

Use only receptacles specifically permitted for this product.

Do not store together with oxidizing and self-igniting products.

Store away from foodstuffs, beverages and feed.

Keep container tightly closed.

Storage class: 11

7.3 Specific end uses

Ensure that proper housekeeping measures are in place. Do not eat, drink or smoke when using this product. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Keep away from food and beverages. Wash the hands thoroughly after handling. Do not use solvents or other products with a defatting effect on the skin.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Mineral oil fog: TLV-ACGIH: 5 mg/m³

DNEL = 2,9 mg aerosol/m³/8 h, Long-term exposure, inhalation

Ingredients with occupational exposure limits to be monitored:

CAS no.	Name	Code	[mg/m ³]	[ppm]	Remark
7783-06-4	H ₂ S	8 hours Short-term	7 14	5 10	EH40/2005
64742-93-4	Asphalt, oxidized	8 hours	10	-	7, 29, 30, TRGS 901

Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts. In absence of such indications, direct exposure to bitumen fumes can be assessed with a number of methods. Any comparison should be made only between data obtained with the same procedure.

8.2 Limiting and monitoring of the exposure

Respiratory protection: Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type "B" (grey for inorganic vapours including H₂S) or self-contained breathing apparatus (SCBA). If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used.

Eye/face protection: Eye protection that meets or exceeds EN 166 is recommended whenever conducting tasks at which bitumen can splatter. Depending on the operating conditions, a tightly seated eye and face protection is necessary.

Skin protection and handguard: Protective gloves, oil resistant and heat resistant according to Directives 89/686/EEC Annex II. The penetration of the gloves is quality dependent. The exact values can be obtained from the manufacturers of protective gloves.

Technical measures: Ensure good ventilation.

Other protective equipment: A safety shower and an eye shower should be located in the work area. Clean contaminated clothing and shoes before reuse.

Exposure controls: see section 6, 7, 12 and 13.

The proposals outlined in this section in terms of exposure control and specific types of protective equipment are based on readily available information. Users should confirm the performance of their protective equipment by contacting the specific manufacturer. Special circumstances may make it necessary to contact a specialist for good hygiene and safety.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Data represents typical values and is not intended for specification purposes.

Appearance, color:	black
Physical state:	solid
Odor:	characteristic
Softening Point:	124 °C (DIN EN 1427)
pH:	N/D
Melting point/-range:	N/D
Freezing point:	N/D
Initial boiling point/-range:	N/D
Flash point:	> 300 °C (ASTM D 92)
Evaporation rate:	N/D
Inflammability (solid, fuel):	N/D
Upper explosion limit (Vol-% in air):	N/D
Lower explosion limit (Vol-% in air):	N/D
Vapor pressure (DVPE):	< 1hPa at 20 °C
Relative vapor density (Air=1):	N/D
Density:	1,0 g/cm ³ (DIN 51757)
Solubility:	N/D
Partition coefficient (n-octanol/water):	N/D
Self ignition temperature:	> 400 °C (ASTM E 659)
Decomposition temperature:	N/D
Viscosity:	N/D
Explosive properties:	The product is not explosive.
Oxidation properties:	N/A

9.2 Other information

Penetration Index: ≤ 2.0

Section 10: Stability and reactivity

10.1 Reactivity

Chemically unreactive.

10.2 Chemical stability

Stable under normal temperature and intended use.

10.3 Possibility of hazardous reactions

No dangerous reactions are expected.

10.4 Conditions to avoid

Prevent overheating. Prevent contact with water when product is hot. Prevent contamination with tank isolation (may reduce the ignition temperature as low as 150 °C).

10.5 Incompatible materials

Prevent contact with strong oxidizing agents and strong reducing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products when properly stored / handled / transported. Un-complete combustion / thermal decomposition of lead, among other things will generate smoke, carbon dioxide, carbon monoxide, sulfur oxide and nitrogen oxide (NO_x).

Section 11: Toxicological information

11.1 Information on toxicological effects

11.1.1 Substance information

Acute oral toxicity:	LD ₅₀ > 5000 mg/kg (rat)
Acute dermal toxicity:	LD ₅₀ > 2000 mg/kg (rabbit)
Irritability skin:	Not irritating (rabbit); Method: equivalent with OECD 404.
Irritability eye:	Not irritating (rabbit); Method: equivalent with OECD 405.
Skin sensitization:	Not sensitizing (guinea pigs); Method: equivalent with OECD 406.
Mutagenicity:	Negative.
Reproduction-Toxicity:	NOAEC > 300 mg/m ³ ; Method: OECD 421 or 422
Carcinogenicity:	Mouse (dermal): positive

11.1.2 Mixture information

N/A

Section 12: Ecological information

12.1. Toxicity

Ecotoxicological effects	Value	Species	Method	Remark
Fish	LL ₅₀ > 1000 mg/L (96 h)	Rainbow trout	QSAR assessment	-
Daphnia	LL ₅₀ > 1000 mg/L (48 h)	Big water flea	QSAR assessment	-
Algae	EL ₅₀ > 1000 mg/L (72 h)	Pseudokirchneriella subcapitata	QSAR assessment	-
Fish toxicity	NOEL ≥ 100 mg/L (28 d)	Rainbow trout	QSAR assessment	-
Crustacea toxicity	NOEL ≥ 100mg/L (21 d)	Big water flea	QSAR assessment	-

12.2 Persistence and degradability

Substance is a hydrocarbon UVCB. Standard tests for persistence and degradability are intended for single substances and are not appropriate for this complex substance.

12.3 Bioaccumulative potential

Substance is a hydrocarbon UVCB. Standard Tests for bioaccumulation potential are intended for single substances and are not appropriate for this complex substance.

12.4 Mobility in soil

The product is virtually insoluble in water. It can be removed by mechanical separation from the water.

12.5 Results of vPvB assessment

N/A

12.6 Other adverse effects

N/A

Section 13: Disposal considerations

13.1 Waste treatment methods

European waste catalog: 05 01 17 "Bitumen". The listed waste code represents only a recommendation. The waste producer is responsible for the concrete specification of the waste.

Section 14: Transport information

14.1 UN number

UN number: UN 3257

14.2 Proper UN shipping name

ADR/RID: ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt, oxidized), PG 9, III; applies exclusively to transport temperatures above 100 °C.

IMDG-Code: ELEVATED TEMPERATURE LIQUID, N.O.S. (Asphalt, oxidized), PG 9, III; applies exclusively to transport temperatures above 100 °C.

14.4 Packing Group

Packing Group: III

14.4 Special precautions for user

The product is not classified as dangerous good, if the transport temperature is below 100 °C.

14.5 Bulk transport in accordance with Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

Section 15: Regulatory information

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

15.1.1 Remarks for labeling

This product is not subject to classification according to directives of the European Union and the German GefStoffV.

15.1.2 S-Phrases

S 36/37: Wear suitable protective clothing and gloves.

15.1.2 P-Phrases

P 280: Wear protective gloves/protective clothing/eye protection/face protection.

15.1.2 National regulations

German water hazard class	Not harmful to water according to german VwVwS, Annex 1
German StörfallV:	Not mentioned.
German TA-Luft:	Not applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment was performed for this substance.

Section 16: Other information

Date of issue: 16.03.2018

Revision of sheet dated: N/A

Revised sections: N/A

Important literature and data sources that was used to compile the safety data sheet

This data sheet is based on manufacturer data. For further information, please contact us.

Description of Identified uses (Use Descriptor System)

Product group: Bitumen

Identified Use	Sector	SU	PROC	ERC	PC
Lubricants (High environmental release)	Professional	22	1, 2, 3, 4, 8a, 8b, 9, 10, 11, 13, 17, 18, 20	8a, 8d	
Lubricants (Low environmental release)	Professional	22	1, 2, 3, 4, 8a, 8b, 9, 10, 11, 13, 17, 18, 20	9a, 9b	
Road and construction applications	Professional	22	8a, 8b, 9, 10, 11, 13	8d, 8f	
Use in Oil and Gas field drilling and production operations	Professional	22	1, 2, 3, 4, 8a, 8b	8d	
Uses in Coatings	Professional	22	1, 2, 3, 4, 5, 8a, 8b, 10, 11, 13, 15, 19	8a, 8d	
Formulation & (re)packing of substances and mixtures	Industrial	3, 10	1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15	2	
Manufacture of substance	Industrial	3, 8, 9	1, 2, 3, 4, 8a, 8b, 15	1, 4	
Rubber production and processing	Industrial	3, 10, 11	1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 13, 14, 15, 21	1, 4, 6d	
Lubricants	Industrial	3	1, 2, 3, 4, 7, 8a, 8b, 9, 10, 13, 17, 18	4, 7	
Distribution of substance	Industrial	3	1, 2, 3, 4, 8a, 8b, 9, 15	1, 2, 3, 4, 5, 6a, 6b, 6c, 6d, 7	
Use as a fuel	Industrial	3	1, 2, 3, 8a, 8b, 16	7	

NordBit S 124

Material safety data sheet according to (EC) No 1907/2006



Identified Use	Sector	SU	PROC	ERC	PC
Use in Oil and Gas field drilling and production operations	Industrial	3	1, 2, 3, 4, 8a, 8b	4	
Uses in Coatings	Industrial	3	1, 2, 3, 4, 5, 7, 8a, 8b, 10, 13, 15	4	
Uses in Coatings	Consumer	21	N/A	8a, 8d	1, 4, 5, 9a, 9b, 9c, 10, 15, 18, 23, 24, 31, 34

Abbreviations and Acronyms

- N/A = Not applicable
- N/D = Not determined
- STEL = Short Term Exposure Limit
- L₅₀ = effective loading rate lethal to 50 % of the test population
- E_rL₅₀ = effective loading rate that causes 50 % reduction in algal growth rate
- LL₅₀ = Lethal loading rate required to kill 50 % of test population
- PBT = Persistent, bioaccumulative, toxic
- vPvB = very persistent, very bioaccumulative
- IARC = International agency for research on cancer
- PPE = Personal protective equipment

Note: The information in this MSDS is based on our current knowledge and experience. These data is not a guarantee of the properties of the product. The use of the product for other use than intended can be dangerous. Data contained in this MSDS does not release the user from the obligation to inform themselves about current regulations and apply them to his work. He has to bear the sole responsibility for the precautions required when using this product.