

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 06.02.2024

Version 9.1 (replaces version 9.0)

Revision: 06.02.2024

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

- **1.1 Product identifier**
- **Trade name: NORTEC® DENSE N**
- **UFI: DQG0-T02Q-S00U-VXNW**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Concrete Densifier & Hardener
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
NORSA Vertriebs GmbH  
Schmiedeberger Str. 55  
04849 Bad Döben  
Germany  
Tel. +49 34243 57 47 00 19  
www.nortecsystem.de  
info@nortecsystem.de
- **Informing department:**  
Tel. +49 34243 57 47 00 19  
info@nortecsystem.de
- **1.4 Emergency telephone number:**  
Tel.: +49 (0) 700-24112112 (CAL)  
Tel.: +1 872 5888271(CAL)

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



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- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.
- STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
Silicic acid, sodium salt
- **Hazard statements**  
H315 Causes skin irritation.

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H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P264 Wash thoroughly after handling.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312 Call a POISON CENTER/doctor if you feel unwell.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

No special hazards known if the regulations/instructions for storage and handling are observed. Where applicable, this section provides information on other hazards that do not result in classification but may contribute to the overall hazards of the substance or mixture.

The product does not contain any substance above legal limits that fulfils the criteria for PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative). The product does not contain any substance above the legal limits that has been included in the list drawn up in accordance with Article 59(1) of Regulation (EC) No 1907/2006 due to endocrine disrupting properties or that has endocrine disrupting or endocrine disrupting properties in accordance with Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

· **Results of PBT and vPvB assessment**





- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

· **3.2 Mixtures**

- **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

CAS: 1344-09-8 EINECS: 215-687-4	Silicic acid, sodium salt  Eye Dam. 1, H318  Skin Irrit. 2, H315; STOT SE 3, H335	30 - 35%
CAS: 7681-49-4 EINECS: 231-667-8	sodium fluoride  Acute Tox. 3, H301; Acute Tox. 1, H310  Skin Irrit. 2, H315; Eye Irrit. 2, H319 EUH032	0.5 - 2%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

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#### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing**  
Induce vomiting, only if person affected is fully conscious.  
Call a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Coughing  
Irritant effects.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
Basic relief, decontamination, symptomatic treatment.

#### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

#### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:**  
Do not allow to enter drainage system, surface or ground water.  
Prevent from spreading (e.g. by damming-in or oil barriers).
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.

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· **6.4 Reference to other sections**

- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.
- See Section 13 for information on disposal.

**SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling**

- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of aerosols.

· **Information about protection against explosions and fires:**

- The product is not flammable

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers:**

- Store only in the original container.

· **Information about storage in one common storage facility:**

- Keep away from foodstuffs, beverages and food.

· **Further information about storage conditions:**

- Keep container tightly sealed.
- Store in a cool place.

· **Recommended storage temperature:** 5-25°C

· **Storage class** (German Technical Rule for Hazardous Substance – TRGS 510)

· **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**7681-49-4 sodium fluoride**

OEL (Ireland)	Long-term value: 2.5 mg/m <sup>3</sup> as F, IOELV
IOELV (European Union)	Long-term value: 2.5 mg/m <sup>3</sup> as F

· **Additional information:**

- The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures**

- Ensure good ventilation/exhaustion at the workplace.
- The usual precautionary measures should be adhered to general rules for handling chemicals.
- Keep away from foodstuffs, beverages and food.
- Take off immediately all contaminated clothing.
- Wash hands during breaks and at the end of the work.

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Avoid contact with the eyes and skin.  
 Do not eat, drink or smoke while working.

· **Breathing equipment:**

Not necessary if room is well-ventilated.  
 In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

· **Hand protection**

Preventive skin protection by use of skin-protecting agents is recommended.

Protective gloves.

The protective gloves to be used must comply with the specifications of the (EU) 2016/425 and the resultant standard EN 374.

This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Only use chemical-protective gloves with CE-labelling of category III.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Butyl rubber, BR

Thickness	Breakthrough time	
	(mm)	(min)
Nitril rubber	0,38	> 480
Neoprene	0,65	> 240
Butyl rubber	0,36	> 480

Avoid natural rubber gloves.

· **Penetration time of glove material**

Value for permeation: Level  $\geq$  120 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **As protection from splashes gloves made of the following materials are suitable:**

Synthetic gloves

Value for the permeation: Level:

$\geq$  3 (60 min)

· **Eye/face protection** Safety glasses

· **Body protection:** Protective work clothing.

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Fluid

· **Colour:**

Clear

· **Odour:**

Odourless

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Not determined

· **Boiling point or initial boiling point and boiling range**

100 °C

· **Flammability**

Not applicable.

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<b>· Lower and upper explosion limit</b>	
· Lower:	Not applicable
· Upper:	Not applicable
· Flash point:	Not applicable
· Decomposition temperature:	Not determined.
· pH at 20 °C	11.5
· Viscosity:	
· Kinematic viscosity	Not determined.
· dynamic:	Not determined.
<b>· Solubility</b>	
· Water:	miscible
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
<b>· Density and/or relative density</b>	
· Density at 20 °C	1.153 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.

**· 9.2 Other information**

· Appearance:	
· Form:	Fluid
<b>· Important information on protection of health and environment, and on safety.</b>	
· Self-inflammability:	Product is not selfigniting.
· Explosive properties:	Product is not explosive.
· Solvent separation test	Not determined
<b>· Solvent content:</b>	
· Water:	56.3 %
· Solids content:	0.9 %
<b>· Change in condition</b>	
<b>· Softening point/range</b>	
· Oxidising properties	None
· Evaporation rate	Not determined.

**· Information with regard to physical hazard classes**

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void

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· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**  
Reacts with strong acids  
Reacts with light alloys  
Attacks materials containing glass and silicate
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Aluminium  
Aluminium
- **10.6 Hazardous decomposition products:**  
No dangerous decomposition products known

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

#### ATE (Acute Toxicity Estimates)

Oral	LD50	11,494 mg/kg
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- **Skin corrosion/irritation**  
Based on available data, the classification criteria are not met.  
Causes skin irritation.
- **Serious eye damage/irritation**  
Based on available data, the classification criteria are not met.  
Causes serious eye irritation.
- **Respiratory or skin sensitisation**  
Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity**  
Based on available data, the classification criteria are not met.  
Not determined
- **Carcinogenicity**  
Based on available data, the classification criteria are not met.  
Not determined
- **Reproductive toxicity**  
Based on available data, the classification criteria are not met.  
Not determined
- **STOT-single exposure**  
May cause respiratory irritation.

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- Not determined
- **STOT-repeated exposure**  
Based on available data, the classification criteria are not met.  
Not determined
- **Aspiration hazard**  
Based on available data, the classification criteria are not met.  
Not determined
- **Additional toxicological information:**  
This statement was deduced from the properties of the single components.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** An accumulation in organisms is not expected.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Ecotoxicological effects:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
This statement was deduced from the properties of the single components.  
Water hazard class 1 (German Regulation) (Self-assessment): Weakly water-endangering.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
At present there are no ecotoxicological assessments.  
The product does not contain organically bounded halogens (AOX-free).  
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Disposal must be made according to official regulations.

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Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Must be specially treated under adherence to official regulations.

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

**· European waste catalogue**

06 00 00	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 02 00	wastes from the MFSU of bases
06 02 99	wastes not otherwise specified
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 02	plastic packaging
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

**· Uncleaned packagings:**

**· Recommendation:**

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

**· Recommended cleaning agent:** Water, if necessary with cleaning agent.

**SECTION 14: Transport information**

**· 14.1 UN number or ID number**

**· ADR/RID, ADN, IMDG, IATA** Void

**· 14.2 UN proper shipping name**

**· ADR/RID, ADN, IMDG, IATA** Void

**· 14.3 Transport hazard class(es)**

**· ADR/RID, ADN, IMDG, IATA**

**· Class** Void

**· 14.4 Packing group**

**· ADR/RID, IMDG, IATA** Void

**· 14.5 Environmental hazards:** Not applicable.

**· 14.6 Special precautions for user** Not applicable.

**· 14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

**· UN "Model Regulation":**

Void

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### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



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- **Signal word** Warning
- **Hazard-determining components of labelling:**  
Silicic acid, sodium salt
- **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.
- **Precautionary statements**

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

#### · **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

#### · **REGULATION (EU) 2019/1148**

#### · **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

#### · **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

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· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations**

· **Decree to be applied in case of technical fault:**

Class	Share in %
III	0.9

· **Water hazard class:**

Water hazard class 1 (Self-assessment): weakly water-endangering.

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

· **Relevant phrases**

H301 Toxic if swallowed.  
 H310 Fatal in contact with skin.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.  
 EUH032 Contact with acids liberates very toxic gas.

· **Version number of previous version: 9.0**

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Acute Tox. 3: Acute toxicity – Category 3  
 Acute Tox. 1: Acute toxicity – Category 1  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

Internal physical tests, MSDS of the ingredients,  
 Information system on hazardous substances of the German Social Accident Insurance (GESTIS-database on hazardous substances), <http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp>  
 applicable EEC directives:  
 - 1907/2006  
 - 1272/2008