

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 19.10.2016

Revision: 19.10.2016

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

· 1.1 Product identifier

· **Trade name: NorZon NV®**

· **Other product identifiers:** SDS Number: 1610, 1612, 1618, 1620, 1622, 9926

· 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:**

Abrasive material used in the manufacturing of bonded and coated abrasive products.

· **Uses advised against:** No further relevant information available.

· 1.3 Details of the supplier of the Safety Data Sheet

· **Manufacturer/Supplier:**

Saint-Gobain Ceramic Materials

1 New Bond Street, Mail Stop 526-203

Worcester, MA 01615-0137

United States

Technical Information: 1-800-243-0028 (Customer Service)

www.abrasivematerials.saint-gobain.com

E-mail: cermatworcester@saint-gobain.com

· 1.4 Emergency telephone number:

CHEMTREC

1-800-424-9300 (US/Canada)

+01 703-527-3887 (International)

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

The product is not classified as hazardous according to the CLP regulation.

· **Additional information:** Long term inhalation of product dust may be harmful.

· 2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

The product is not classified as hazardous according to the CLP regulation.

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

· **Hazard pictograms** Not Regulated

· **Signal word** Not Regulated

· **Hazard-determining components of labelling:** None.

· **Hazard statements** Not Regulated

· **Precautionary statements** Not Regulated.

· **Additional information:**

Safety data sheet available on request.

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- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Components:

CAS: 1344-28-1 EINECS: 215-691-6 Reg.nr.: 01-2119529248-35-XXXX	aluminium oxide substance with a Community workplace exposure limit	57-62%
CAS: 1314-23-4 EINECS: 215-227-2 Reg.nr.: 01-2119486976-14-XXXX	zirconium dioxide substance with a Community workplace exposure limit	37-45%
CAS: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide substance with a Community workplace exposure limit	0-2%
CAS: 919-30-2 EINECS: 213-048-4 Index number: 612-108-00-0 Reg.nr.: 01-2119480479-24-XXXX	3-aminopropyltriethoxysilane ----- ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H302	<1%
CAS: 12055-23-1 EINECS: 235-013-2 Reg.nr.: 01-2119967820-31-XXXX	hafnium dioxide substance with a Community workplace exposure limit	<1%
CAS: 1344-09-8 Reg.nr.: 01-2119448725-31-XXXX	silicic acid, sodium salt ----- ⚠ Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	<1%
CAS: 1314-36-9 EINECS: 215-233-5 Reg.nr.: 01-2119971254-36-XXXX	yttrium oxide substance with a Community workplace exposure limit	<1%

· Additional information:

For the wording of the listed Hazard Statements refer to section 16.

TiO₂ forms a solid solution with ZrO₂. Discreet particles of TiO₂ cannot be released, therefore, a carcinogenic classification of the product is not warranted.

Gamma-Aminopropyltriethoxysilane (CAS 919-30-2) and silicic acid, sodium salt (CAS 1344-09-8) are present only in NV Treated Code 1612.

This product contains trace quantities of naturally occurring radioactive material (NORM). The low level of radioactivity in NV grains is attributed to the naturally occurring raw material zircon sand that has trace quantities of naturally occurring radioactive uranium and thorium. The Uranium and Thorium level in the sand used for producing NV grains is below 500 parts per million (ppm), which is the threshold level established by the United States Nuclear Regulatory Commission for exempt quantities of source material.

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SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Brush off loose particles from skin.

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

· **After eye contact:** Remove contact lenses if worn.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

Slight irritant effect on eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:**

The product is not flammable.

Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** None.

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

· 5.3 Advice for firefighters

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required.

Ensure adequate ventilation

Avoid formation of dust.

Avoid breathing dust.

Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.

· **6.2 Environmental precautions** No special measures required.

· 6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

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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 disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Use only in well ventilated areas.
- Prevent formation of dust.
- Any unavoidable deposit of dust must be regularly removed.
- Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.

- Information about fire - and explosion protection:** No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

- Storage:**
- Requirements to be met by storerooms and receptacles:**
Storage area should be dry and well-ventilated.
- Information about storage in one common storage facility:**
Store away from oxidising agents.
Store away from foodstuffs.
Do not store together with acids.
- Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:**

1344-28-1 aluminium oxide

PEL (USA)	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction

1314-23-4 zirconium dioxide

PEL (USA)	Long-term value: 5 mg/m ³ as Zr
REL (USA)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr

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TLV (USA)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
13463-67-7 titanium dioxide	
PEL (USA)	Long-term value: 15* mg/m ³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 10 mg/m ³ withdrawn from NIC
1314-36-9 yttrium oxide	
PEL (USA)	Long-term value: 1 mg/m ³ as Y
REL (USA)	Long-term value: 1 mg/m ³ as Y
TLV (USA)	Long-term value: 1 mg/m ³ as Y
12055-23-1 hafnium dioxide	
PEL (USA)	Long-term value: 0,5 mg/m ³ as Hf
REL (USA)	Long-term value: 0,5 mg/m ³ as Hf
TLV (USA)	Long-term value: 0,5 mg/m ³ as Hf

- **DNELs:** No further relevant information available.
- **PNECs:** No further relevant information available.

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale dust / smoke / mist.

Avoid contact with the eyes and skin.

· Respiratory protection:

For spills, respiratory protection may be advisable.

Use respiratory protection when grinding or cutting material.

Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.

· Protection of hands:

Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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- **Eye protection:**



Safety glasses

- **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

- **Limitation and supervision of exposure into the environment:** No special requirements.

- **Risk management measures:** No special requirements.

SECTION 9: Physical and chemical properties

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

- **Appearance**

Form: Granulate

Colour: Grey

- **Odour:** Odourless

- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Melting point/Melting range:** 1980 °C (3596 °F)

- **Boiling point/Boiling range:** Not determined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not determined.

- **Auto/Self-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits**

Lower: Not determined.

Upper: Not determined.

- **Vapour pressure:** Not applicable.

- **Density:**

Relative density: 4,6

Vapour density: Not applicable.

Evaporation rate: Not applicable.

- **Solubility in / Miscibility with water:**

Insoluble.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity**

Dynamic: Not applicable.

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Kinematic:

Not applicable.

· 9.2 Other information

No further relevant information available.

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 and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong acids and alkali.
- **10.4 Conditions to avoid** Prevent formation of dust.
- **10.5 Incompatible materials** No further relevant information available.
- **10.6 Hazardous decomposition products** Possible in traces.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer):

13463-67-7 | titanium dioxide

2B

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable routes of exposure:

 Eye contact.
Skin contact.

· Repeated dose toxicity:

Repeated or long-term inhalation of product dusts may cause pulmonary disease.

· Germ cell mutagenicity: Based on available data, the classification criteria are not met.

· Carcinogenicity:

Based on available data, the classification criteria are not met.

 TiO₂ is bound in a solid solution and will not be released as discrete particles of TiO₂.

· 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.

· STOT-repeated exposure: Based on available data, the classification criteria are not met.

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· **Aspiration hazard:** Based on available data, the classification criteria are not met.

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** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Contact waste processors for recycling information.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|---------------|
| · 14.1 UN-Number | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · 14.2 UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · 14.3 Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Not Regulated |
| · 14.4 Packing group | |
| · DOT, ADR, IMDG, IATA | Not Regulated |

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- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Not applicable.
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

1344-28-1 | aluminium oxide

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempt.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**

Reference to titanium dioxide is based on unbound respirable particles and is not generally applicable to product as supplied.

13463-67-7 | titanium dioxide

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer)**

Reference to chemical component(s) listed below are based on unbound respirable particles and are not generally applicable to product as supplied.

13463-67-7 | titanium dioxide

2B

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7 | titanium dioxide

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· Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Other regulations, limitations and prohibitive regulations**· Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· Sources

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Website, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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