# Safety Data Sheet



BONDERITE M-NT NT-1 ZIRCONIUM COATING known as Bonderite NT-1 25KG

SDS No. : 322214
V001.8
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## Section 1. Identification of the substance/preparation and of the company/undertaking

**Product name:**
BONDERITE M-NT NT-1 ZIRCONIUM COATING known as Bonderite NT-1 25KG

**Other means of identification:**
BONDERITE M-NT NT-1 CAN25KG
**Product code:**
IDH1076335
**Recommended use of the chemical and restrictions on use**

**Intended use:**
Product for the conversion treatment of metals

**Identification of manufacturer, importer or distributor**
**Manufacturer:** Guangzhou Henkel Surface Technologies Co. Ltd., 2nd NanYun Road, GZ Science City, Guangzhou City, 510663 Guangzhou Province, China. Phone: +86-20-32122-800 Fax: +86-20-32122-801

**Importer:** Henkel Thailand Ltd The Offices at Centralworld, 35th Floor, 999/9 Rama 1 Rd, Kwang Patumwan, Khet Patumwan, Bangkok 10330, Thailand. Phone : + 6622098000 Fax : +6622098008

**E-mail address of person responsible for Safety Data Sheet:**
ap-ua-psra.sea@henkel.com

**Emergency information:**
FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident). Call CHEMTREC: +1 703-741-5970

## Section 2. Hazards identification

**GHS Classification:**

| Hazard Class | Hazard Category |
|---|---|
| Corrosive to metals | Category 1 |

**GHS label elements:**

**Hazard pictogram:**

**Signal word:**
Warning

**Hazard statement:**
H290 May be corrosive to metals.

**Precaution:**

**Prevention:**
P234 Keep only in original container.

**Response:**
P390 Absorb spillage to prevent material damage.

**Storage:**
P406 Store in corrosive resistant container with a resistant inner liner.

## Section 3. Composition / information on ingredients

**Substance or Mixture:**
Mixture

**Declaration of hazardous chemical:**

| Hazard component CAS-No. | Content | GHS Classification |
|---|---|---|
| Dihydrogen hexafluorozirconate(2-)<br>12021-95-3 | 0.1- 1 % | Corrosive to metals 1<br>H290<br>Acute toxicity 3; Oral<br>H301<br>Acute toxicity 3; Inhalation<br>H331<br>Acute toxicity 3; Dermal<br>H311<br>Skin corrosion/irritation 1<br>H314<br>Acute hazards to the aquatic environment 3<br>H402 |

## Section 4. First aid measures

**Inhalation:**
If inhaled, immediately remove the affected person to fresh air.
If symptoms develop and persist, get medical attention.

**Skin contact:**
Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.
Remove contaminated clothing and footwear.

**Eye contact:**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

**Ingestion:**
If material is ingested, immediately contact a physician or poison control center.

## Section 5. Fire fighting measures

**Suitable extinguishing media:**
All common extinguishing agents are suitable.

**Special protection equipment and precautions for firefighters:**
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional fire fighting advice:**
In case of fire, keep containers cool with water spray.

## Section 6. Accidental release measures

**Personal precautions:**
Wear impervious gloves and chemical splash goggles.

**Environmental precautions:**
Do not empty into drains / surface water / ground water.

**Clean-up methods:**
Collect spilled material with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container.
Neutralize the spilled material before disposal.
Wash away residue with plenty of water.

## Section 7. Handling and storage

**Handling:**
Avoid contact with eyes, skin and clothing.
Do not breathe gas/fumes/vapor/spray.
Wash thoroughly after handling.
Do not take internally.
For industrial use only.

**Storage:**
Store frost-free.
Protect from freezing.
Store below 110°F. (43°C)

## Section 8. Exposure controls / personal protection

**Components with specific control parameters for workplace:**

| | | |
|---|---|---|
| FLUORIDES, AS F<br>12021-95-3 | **Value type** | Time Weighted Average (TWA): |
| | **mg/m³** | 2.5 |
| | **Remarks** | ACGIH |
| FLUORIDE (AS F)<br>12021-95-3 | **Value type** | Time Weighted Average (TWA): |
| | **mg/m³** | 2.5 |
| | **Remarks** | TH OEL |
| ZIRCONIUM AND COMPOUNDS, AS ZR<br>12021-95-3 | **Value type** | Time Weighted Average (TWA): |
| | **mg/m³** | 5 |
| | **Remarks** | ACGIH |
| ZIRCONIUM AND COMPOUNDS, AS ZR<br>12021-95-3 | **Value type** | Short Term Exposure Limit (STEL): |
| | **mg/m³** | 10 |
| | **Remarks** | ACGIH |
| FLUORIDE AS DUST<br>12021-95-3 | **Value type** | Time Weighted Average (TWA): |
| | **mg/m³** | 2.5 |
| | **Remarks** | TH OEL |

**Respiratory protection:**
Ensure adequate ventilation.
If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

**Hand protection:**
Use impervious gloves.
Nitrile rubber gloves should be worn.

**Eye protection:**
Wear chemical goggles or a full face shield.

**Body protection:**
Use of an impervious apron is recommended.

**Engineering controls:**
Ensure good ventilation/suction at the workplace.

**General protection and hygiene measures:**
Good industrial hygiene practices should be observed.

## Section 9. Physical and chemical properties

| | |
|---|---|
| **Appearance:** | Liquid |
| **Odor:** | Slightly |
| **Odor threshold (CA):** | No data available. |
| **pH:** | 2 - 4 |
| **Melting point / freezing point:** | No data available. |
| **Specific gravity:** | 0.984 - 1.024 |
| **Boiling point:** | 100 °C (212 °F) |
| **Flash point:** | > 93 °C (> 199.4 °F) |
| **Evaporation rate:** | No data available. |
| **Flammability (solid, gas):** | No data available. |
| **Lower explosive limit:** | No data available. |

| | |
|---|---|
| **Upper explosive limit:** | No data available. |
| **Vapor pressure:** | No data available. |
| **Vapor density:** | No data available. |
| **Density:** | No data available. |
| **Solubility:** | No data available. |
| **Partition coefficient: n-octanol/water:** | No data available. |
| **Auto ignition:** | No data available. |
| **Decomposition temperature:** | No data available. |
| **Viscosity:** | No data available. |
| **VOC content:** | No data available. |

## Section 10. Stability and reactivity

**Reactivity/Incompatible materials:**
None if used for intended purpose.
**Chemical stability:**
Stable under recommended storage conditions.
**Possibility of hazardous reactions:**
Will not occur.
**Conditions to avoid:**
No decomposition if used according to specifications.
**Hazardous decomposition products:**
None if used for intended purpose.

## Section 11. Toxicological information

| | |
|---|---|
| **General toxicological information:** | To the best of our knowledge no harmful effects are to be expected if the product is handled and used properly. |
| **Oral toxicity:** | Acute toxicity estimate (ATE) : > 2,000 mg/kg<br>Method: Calculation method |
| **Inhalative toxicity:** | Acute toxicity estimate (ATE) : > 20 mg/l<br>Exposure time: 4 h<br>Test atmosphere: Vapor.<br>Method: Calculation method |
| **Dermal toxicity:** | Acute toxicity estimate (ATE) : > 2,000 mg/kg<br>Method: Calculation method |
| Symptoms of Overexposure**:** | None known. |

## Section 12. Ecological information

**General ecological information:** Do not empty into drains / surface water / ground water.

**Toxicity:**

| | | |
|---|---|---|
| Dihydrogen hexafluorozirconate(2-)<br>12021-95-3 | Value type | LC50 |
| | Value | 172.4 mg/l |
| | Acute Toxicity Study | Fish |
| | Exposure time | 96 h |
| | Species | Danio rerio |
| | Method | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| Dihydrogen hexafluorozirconate(2-) | Value type | EC50 |
| | Value | 151.4 mg/l |

| | | |
|---|---|---|
| 12021-95-3 | Acute Toxicity Study | Daphnia |
| | Exposure time | 48 h |
| | Species | Daphnia magna |
| | Method | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| Dihydrogen hexafluorozirconate(2-) 12021-95-3 | Value type | EC50 |
| | Value | 10.66 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchnerella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| | Value type | EC10 |
| | Value | 1.63 mg/l |
| | Acute Toxicity Study | Algae |
| | Exposure time | 72 h |
| | Species | Pseudokirchnerella subcapitata |
| | Method | OECD Guideline 201 (Alga, Growth Inhibition Test) |

## Section 13. Disposal considerations

**Product**

**Method of disposal:**
Dispose of in accordance with local and national regulations.

**Packaging**

**Disposal of uncleaned packages:**
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

## Section 14. Transport information

**Road transport ADR:**

| | |
|---|---|
| Class: | 8 |
| Packing group: | III |
| Classification code: | C1 |
| Hazard ident. number: | 80 |
| UN no.: | 3264 |
| Label: | 8 |
| Technical name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hexafluorozirconic acid solution) |

**Railroad transport RID:**

| | |
|---|---|
| Class: | 8 |
| Packing group: | III |
| Classification code: | C1 |
| Hazard ident. number: | 80 |
| UN no.: | 3264 |
| Label: | 8 |
| Technical name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hexafluorozirconic acid solution) |

**Inland water transport ADN:**

| | |
|---|---|
| Class: | 8 |
| Packing group: | III |
| Classification code: | C1 |
| Hazard ident. number: | |
| UN no.: | 3264 |
| Label: | 8 |
| Technical name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hexafluorozirconic acid solution) |

**Marine transport IMDG:**

| | |
|---|---|
| Class: | 8 |
| Packing group: | III |
| UN no.: | 3264 |
| Label: | 8 |
| EmS: | F-A ,S-B |
| Seawater pollutant: | - |
| Proper shipping name: | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hexafluorozirconic acid solution) |

**Air transport IATA:**

| | |
|---|---|
| Class: | 8 |
| Packing group: | III |
| Packaging instructions (passenger): | 852 |
| Packaging instructions (cargo): | 856 |
| UN no.: | 3264 |
| Label: | 8 |
| Proper shipping name: | Corrosive liquid, acidic, inorganic, n.o.s. (Hexafluorozirconic acid solution) |

## Section 15. Regulatory information

**Regulatory Information:**
Ministry of Industry Notice. The system to classify and communicate the hazard of hazardous material, BE. 2555

**Global inventory status:**

| Regulatory list | Notification |
|---|---|
| EINECS | yes |
| TSCA | yes |
| AICS | yes |
| DSL | yes |
| ENCS (JP) | yes |
| KECI (KR) | yes |
| PICCS (PH) | yes |
| INV (CN) | yes |
| NZIOC | yes |

## Section 16. Other information

**Disclaimer:**
This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.