

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by
Regulation(EU) No. 2020/878

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

1.1 Product identifier

Product name: TN3005-C

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

Identified uses: Silicone Elastomer

Uses advised against: For industrial use only.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Importer/Distributor Information : Momentive Performance Materials GmbH
Chempark Leverkusen Gebaeude V7
DE - 51368 Leverkusen
Germany

Contact person : commercial.services@momentive.com

Telephone : General information
+390510924300 (Customer Service Centre)

1.4

Emergency telephone number : Europe, Israel & All other: +44 (0) 1235239670; Middle East:+44
(0) 1235239671

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has not been classified as hazardous according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Not classified

The product is not classified for chronic aquatic toxicity, for further details see section 16

2.2 Label Elements Not applicable

Supplemental label information

EUH210: Safety data sheet available on request.

Additional Information: No data available.

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2.3 Other hazards

Endocrine disrupting properties-Toxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Endocrine disrupting properties-ecotoxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: No data available.

| Chemical name | Concentration | CAS-No. | EC No. | REACH Registration No. | M-Factor: | Notes |
|--|---------------|------------|-----------|------------------------|--------------------------------|-----------|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | 1 - <5% | 27858-32-8 | 248-697-2 | No data available. | Not applicable | |
| Octamethylcyclotetrasiloxane | 0,01 - <0,1% | 556-67-2 | 209-136-7 | 01-2119529238-36-XXXX | Aquatic Toxicity (Chronic): 10 | PBT, vPvB |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

| Chemical name | Classification | Notes |
|--|---|--------------------|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | Flam. Liq.: 3: H226; Eye Dam.: 2: H319; STOT SE: 3: H336; | |
| Octamethylcyclotetrasiloxane | Flam. Liq.: 3: H226; Repr.: 2: H361f; Aquatic Chronic: 1: H410; | No data available. |

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Move into fresh air and keep at rest. Get medical attention if symptoms occur.

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|---|---|
| Eye contact: | Rinse the eye with water immediately. If eye irritation persists: Get medical advice/attention. |
| Skin Contact: | After contact with skin, remove product mechanically. Wash area with soap and water. |
| Ingestion: | If swallowed, do NOT induce vomiting. Give a glass of water. Rinse mouth. Consult a physician for specific advice. |
| 4.2 Most important symptoms and effects, both acute and delayed: | Product may hydrolyse upon contact with body fluids in the gastrointestinal tract to produce additional methanol; therefore, consider the signs/symptoms of methanol poisoning and also observe the known latency period of several days! |
| 4.3 Indication of any immediate medical attention and special treatment needed | |
| Hazards: | No data available. |
| Treatment: | If swallowed, do NOT induce vomiting. Give a glass of water. If swallowed, rinse mouth with water (only if the person is conscious). Product may hydrolyze upon contact with body fluids in the gastrointestinal tract to produce additional methanol. The potential for toxic effects due to methanol formation (eye damage and blindness, metabolic acidosis, dizziness and drowsiness, fetal toxicity, and liver, kidney, and heart muscle damage) should be recognized. |

SECTION 5: Firefighting measures

| | |
|---|---|
| General Fire Hazards: | Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. |
| 5.1 Extinguishing media | |
| Suitable extinguishing media: | All standard extinguishing agents are suitable. |
| Unsuitable extinguishing media: | Do not use water jet as an extinguisher, as this will spread the fire. |
| 5.2 Special hazards arising from the substance or mixture: | In case of fire, carbon monoxide and carbon dioxide may be formed. |
| 5.3 Advice for firefighters | |
| Special fire-fighting procedures: | Product may charge electrostatically during pouring or filling. Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking. |
| Special protective equipment for fire-fighters: | Use standard firefighting procedures and consider the hazards of other involved materials. Self-contained breathing apparatus. |

SECTION 6: Accidental release measures

| | |
|---|--|
| 6.1 Personal precautions, protective equipment and emergency procedures: | Provide adequate ventilation. Use personal protective equipment. Keep container tightly closed and in a well-ventilated place. Caution: Contaminated surfaces may be slippery. |
| 6.2 Environmental Precautions: | Prevent runoff from entering drains, sewers, or streams. |
| 6.3 Methods and material for containment and cleaning up: | Use mechanical handling equipment. Shovel up and place in a container for salvage or disposal. |

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6.4 Reference to other sections: Remove sources of ignition.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling: Methanol is formed during processing. Wear appropriate personal protective equipment.

Storage conditions: Keep away from sources of ignition - No smoking. Store in original container.

7.2 Conditions for safe storage, including any incompatibilities: Store in original tightly closed container. Keep in a cool, ventilated location far from heat source and flame. Keep away from food, drink and animal feeding stuffs.

Storage Stability: Material is stable under normal conditions.

7.3 Specific end use(s): No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters Occupational Exposure Limits

None of the components have assigned exposure limits.

Biological Limit Values

None.

8.2 Exposure controls

Appropriate Engineering Controls:

Eye wash facilities and emergency shower must be available when handling this product. Observe good industrial hygiene practices.

Individual protection measures, such as personal protective equipment

General information:

Use only in well-ventilated areas. Wear suitable gloves and eye/face protection.

Eye/face protection:

Safety glasses with side-shields conforming to EN166

Skin protection

Hand Protection:

Advice: There is no risk to health due to contact with the chemical. Use hand protection to prevent mechanically injuries.

Other:

Wear suitable protective clothing and eye/face protection. Wear suitable protective clothing.

Respiratory Protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection mask with Filtrertype ABEK

Hygiene measures:

Avoid contact with eyes, skin, and clothing. Wash hands after handling. When using do not eat or drink.

Environmental exposure controls:

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

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| | |
|---|---|
| Appearance | |
| Physical state: | solid |
| Form: | Paste |
| Color: | Colorless |
| Odor: | Faint |
| Odor Threshold: | No data available. |
| pH: | Not applicable |
| Melting Point: | No data available. |
| Boiling Point: | No data available. |
| Flash Point: | 118 °C |
| Evaporation Rate: | No data available. |
| Flammability (solid, gas): | No data available. |
| Flammability Limit - Upper (%): | No data available. |
| Flammability Limit - Lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Relative vapor density: | No data available. |
| Density: | 1,03 g/cm ³ (23 °C) |
| Relative density: | No data available. |
| Solubility(ies) | |
| Solubility in Water: | Insoluble |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water) Log Pow: | No data available. |
| | |
| Autoignition Temperature: | No data available. |
| Decomposition Temperature: | No decomposition if stored and applied as directed. |
| SADT: | No data available. |
| Viscosity, dynamic: | No data available. |
| Viscosity, kinematic: | > 20,5 mm ² /s (40 °C) |
| Explosive properties: | No data available. |
| Oxidizing properties: | No data available. |

9.2 Other information
 No data available.

SECTION 10: Stability and reactivity

| | |
|---|--|
| 10.1 Reactivity: | Material is stable under normal conditions. |
| 10.2 Chemical Stability: | Material is stable under normal conditions. |
| 10.3 Possibility of hazardous reactions: | Hazardous polymerization does not occur. Avoid contact with: Moisture. |
| 10.4 Conditions to avoid: | Keep away from heat, sparks and open flame. |
| 10.5 Incompatible Materials: | Moisture. Strong Acids, Strong Bases |
| 10.6 Hazardous Decomposition Products: | Carbon oxides Oxides of silicon. Generates methanol during cure. Measurements at temperatures above 150°C in presence of air (oxygen) have shown that small amounts of formaldehyde are formed due to oxidative degradation. |

SECTION 11: Toxicological information

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General information: In serious cases absorption of methanol in the body may lead to damage to the eyesight.

Information on likely routes of exposure

Inhalation: No data available.

Ingestion: No data available.

Skin Contact: No data available.

Eye contact: No data available.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy

Octamethylcyclotetrasiloxane LD 50 (Rat): > 4.800 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy

Octamethylcyclotetrasiloxane LD 50 (Rat): > 2.375 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy

Octamethylcyclotetrasiloxane LC50 (Rat, 4 h): 36 mg/l

Repeated dose toxicity

Product: No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy

Octamethylcyclotetrasiloxane No data available.

Skin Corrosion/Irritation:

Product: No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy

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Octamethylcyclotetrasiloxane OECD Test Guideline 404 (Rabbit): Non irritating

Serious Eye Damage/Eye Irritation:

Product: No data available.
Specified substance(s)
 Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane OECD-Guideline 405 (Acute Eye Irritation/Corrosion) (Rabbit): Non irritating

Respiratory or Skin Sensitization:

Product: No data available.
Specified substance(s)
 Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane Maximisation Test, OECD-Guideline 406 (Skin Sensitisation) (Guinea Pig): Not sensitizing

Germ Cell Mutagenicity

In vitro

Product: No data available.
Specified substance(s)
 Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane Ames-Test (OECD-Guideline 471 (Genetic Toxicology: Salmonella typhimurium, Reverse Mutation Assay)): negative (not mutagenic)
 Mouse Lymphoma Assay (OECD Guideline 476): negative (not mutagenic)

In vivo

Product: No data available.
Specified substance(s)
 Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane Chromosomal aberration (OECD 475) Inhalation (Rat, male and female): negative
 Dominant lethal assay (OECD 478) Oral (Rat, male and female): negative

Carcinogenicity

Product: No data available.
Specified substance(s)
 Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane No data available.

Reproductive toxicity

Product: No data available.
Specified substance(s)

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Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane No data available.

Aspiration Hazard

Product: No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane No data available.

11.2 Information on other hazards

Endocrine disrupting properties

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

Components:

Titanium, Bis(ethyl acetoacetate)-diisopropoxy Octamethylcyclotetrasiloxane No data available.

Other effects: No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish

Product: No data available.

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Specified substance(s)

| | |
|--|---|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | No data available. |
| Octamethylcyclotetrasiloxane | No toxicity at the limit of solubility ; LC50 (Oncorhynchus mykiss, 96 h): > 0,022 mg/l |

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

| | |
|--|---|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | No data available. |
| Octamethylcyclotetrasiloxane | No toxicity at the limit of solubility ; EC50 (Daphnia magna, 48 h): > 0,015 mg/l |

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

| | |
|--|---|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | No data available. |
| Octamethylcyclotetrasiloxane | No toxicity at the limit of solubility ; NOEC (Oncorhynchus mykiss, 93 d): >= 0,0044 mg/l |

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

| | |
|--|---|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | No data available. |
| Octamethylcyclotetrasiloxane | No toxicity at the limit of solubility ; NOEC (Daphnia magna, 21 d): > 0,015 mg/l |

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

| | |
|--|--|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | No data available. |
| Octamethylcyclotetrasiloxane | No toxicity at the limit of solubility ; ErC50 (Selenastrum capricornutum, 96 h): > 0,022 mg/l |

12.2 Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s)

| | |
|--|--|
| Titanium, Bis(ethyl acetoacetate)-diisopropoxy | No data available. |
| Octamethylcyclotetrasiloxane | (29 d, 310 Ready Biodegradability - CO ₂ in Sealed Vessels (Headspace Test)): 3,7 % Persistent Not readily biodegradable. |

BOD/COD Ratio

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Product No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy No data available.
 Octamethylcyclotetrasiloxane No data available.

12.3 Bioaccumulative potential

Product: No data available.

Specified substance(s)

Titanium, Bis(ethyl acetoacetate)-diisopropoxy No data available.
 Octamethylcyclotetrasiloxane Bioconcentration Factor (BCF): 12.400

12.4 Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Titanium, Bis(ethyl acetoacetate)-diisopropoxy No data available.
 Octamethylcyclotetrasiloxane No data available.

12.5 Results of PBT and vPvB assessment: No data available.

Titanium, Bis(ethyl acetoacetate)-diisopropoxy No data available.
 Octamethylcyclotetrasiloxane Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB)

Octamethylcyclotetrasiloxane (D4) meets the current EU REACH Annex XIII criteria for PBT and vPvB and has been added to the candidate list for Substances of very high concern (SVHC)., *However our understanding of the available science is that D4 does not behave similarly to known PBT/vPvB substances. The silicones industries interpretation of the available data is that the weight of scientific evidence from field studies shows that D4 is not biomagnifying in aquatic and terrestrial food webs. D4 in air will degrade by naturally occurring reactions in the atmosphere. Any D4 in air that does not degrade by these reactions is not expected to deposit from the air to water, to land, or to living organisms.*

12.6 Endocrine disrupting properties:

Product: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Components:

Titanium, Bis(ethyl acetoacetate)-diisopropoxy No data available.
 Octamethylcyclotetrasiloxane No data available.

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12.7 Other adverse effects:

Other hazards

Product: No data available.

Additional Information: Ecotoxicological data for this product is not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information: The generation of waste should be avoided or minimized wherever possible. Do not discharge into drains, water courses or onto the ground. See Section 8 for information on appropriate personal protective equipment.

Disposal methods: Can be incinerated when in compliance with local regulations.

SECTION 14: Transport information

ADR

Not regulated.

ADN

Not regulated.

RID

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

14.6 Special precautions for user: This product is not regarded as dangerous goods according to the national and international regulations on the transport of dangerous goods. Protect from moisture. Keep away from food, foodstuff, acids and bases. keep away from odour sensitive materials

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:

EU Regulations

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled

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Substances: none

Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances: none

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: none

Regulation (EC) No. 649/2012 Import and export of dangerous chemicals: none

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended: none

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC): none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use: none

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.: none

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I: None present or none present in regulated quantities.

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work: none

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

Inventory Status

| | | |
|--|--|----------------|
| Canada DSL Inventory List: | q (quantity restricted) | Remarks: None. |
| Australia AICS: | Not in compliance with the inventory. | Remarks: None. |
| EINECS, ELINCS or NLP: | On or in compliance with the inventory | Remarks: None. |
| Japan (ENCS) List: | On or in compliance with the inventory | Remarks: None. |
| China Inv. Existing Chemical Substances: | On or in compliance with the inventory | Remarks: None. |
| Korea Existing Chemicals Inv. (KECI): | On or in compliance with the inventory | Remarks: None. |
| Canada NDSL Inventory: | Not in compliance with the inventory. | Remarks: None. |
| Philippines PICCS: | On or in compliance with the inventory | Remarks: None. |
| US TSCA Inventory: | On or in compliance with the inventory | Remarks: None. |
| New Zealand Inventory of Chemicals: | On or in compliance with the inventory | Remarks: None. |
| Taiwan Chemical Substance Inventory: | On or in compliance with the inventory | Remarks: None. |

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REACH:

If purchased from Momentive Performance Materials GmbH in Leverkusen, Germany, all substances in this product have been registered by Momentive Performance Materials GmbH or upstream in our supply chain or are exempt from registration under Regulation (EC) No 1907/2006 (REACH). For polymers, this includes the constituent monomers and other reactants.

Remarks: None.

SECTION 16: Other information

Revision Information: Not relevant.

Key literature references and sources for data: The partition coefficient of D4 between PDMS and water has been determined as $\log K_{PDMS-water} = 7.09$. It follows that PDMS containing up to 3%w/w D4 will generate a thermodynamic limit concentration of 2.4 µg D4/L in the water phase. The critical 21d-NOEC for daphnia of 7.9 µg D4/L will not be reached. The product is therefore not classified for chronic aquatic toxicity

Wording of the H-statements in section 2 and 3

H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Training information: No data available.

Issue Date: 28.10.2022

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Disclaimer:

Notice to reader

Unless otherwise specified in section 1.2, Momentive Products are intended for industrial application only.

They are not intended for specific medical applications, neither for long-lasting (> 30 days) implantation into the human body, injected or directly ingested, nor for the manufacture of multiple usable contraceptives.

Further Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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