



ORYX® Silicone FR

SAFETY DATA SHEET

Version 1.0, 10-03-2016 (English)

SECTION 1: Identification of the material and the company

1.1 Product identification

ORYX® Silicone FR

1.2 Relevant identified use of the material

The material:

- Single component neutral silicone sealant

Identified application:

- Fire-resistant joint sealing
- Fire-resistant duct sealing
- Fire-resistant sealing material

1.3 Details relating to the issuer of the safety data sheet

Dutch Marine Systems BV
Hoogschaijksestraat 15
5374 EC Schaijk
The Netherlands

SECTION 2: Composition / information content

2.1 Chemical composition

Mix of polymethylsiloxane, amorphous silica, inert fillers and binder.

Substances that represent a risk to health in the sense of the CHIP guidelines or that are classified according to the Occupational Exposure Limit (OEL):

| Name | Concentration | CAD No. | Symbol* | R-phrases |
|--------------------------|---------------|-----------|---------|---------------|
| Vinylsilanetrimethoxy | <5% | 2768-02-7 | Xn R | R10, R20 |
| Titanium tetrabutanolate | <2% | 5593-70-4 | Xi | R10, R38, R41 |

Supplementary information – During use, in contact with water vapour, the following substances are released:

| Name | Concentration | CAD No. | Symbol* | R-phrases |
|-----------|---------------|---------|---------|---------------------------------|
| Methanol | Max. 3% | 67-56-1 | FT | R11, R23/24/25, R39/23/24/25 |
| 1-Butanol | <2% | 71-36-3 | Xn | R10, R22, R37/38, R41, R67 |

*for full text, see section 16

SECTION 3: Hazards identification

Dangerous effects:

- Slightly irritating to eyes.
- Slightly irritating to skin.
- Slightly irritating to respiratory system.

According to EC criteria, the product is not classified as hazardous.

SECTION 4: First-aid measures

General:

- If unconscious, place in stable position on the side, do not administer any substance orally.
- In case of doubt or if symptoms persist, seek medical advice.

Inhalation:

- Remove casualty to fresh air and keep at rest.
- If breathing is irregular or stops, place on artificial respiration.
- If necessary, seek medical advice.

Eye contact:

- Remove contact lenses. While eyes are wide open, rinse immediately with plenty of water for at least 15 minutes and seek medical advice. 68}

Skin contact:

- Take off contaminated clothing and wipe off surplus sealant with clean absorbent materials.
- Wash the skin thoroughly with soap and water or a recognised skin-cleaning agent.
- Do not use any solvents or thinners.
- Seek medical advice if skin irritation persists.

Ingestion:

- If swallowed, rinse mouth with clean water and immediately seek medical advice.
- Keep at rest.
- DO NOT induce vomiting .

SECTION 5: Firefighting measures

Suitable extinguishing agents:

- Carbon dioxide, foam, powder, water

Fire can generate thick black smoke that contains hazardous particulates (see section 10). Exposure to these particulates can be hazardous to health. Appropriate respiration equipment and approved protective clothing are mandatory.

Cool packaging exposed to fire using water. Prevent water used for extinguishing from entering the sewerage system or the environment.

SECTION 6: Accidental release measures

Personal preventive measures:

- Remove non-essential personnel. Avoid contact with skin and inhalation of vapours (see sections 7 and 8).

Environmental preventive measures:

- This product does not represent any particular risks to the environment
- Remove the product by scraping it off with a trowel or similar tool. Place waste in marked containers in accordance with local guidelines (see section 13).
- Clean contaminated surfaces with a suitable solvent and then rinse. Prevent the material from entering the sewerage system or the environment. If the material enters the sewerage system or the environment, alert the local water authority or municipality directly.

SECTION 7: Handling and storage

Handling:

- Avoid skin and eye contact and inhalation of vapours.
- Smoking, eating and drinking must be avoided in storage areas. Wash hands before breaks and after work. For personal protection, see section 8.
- Keep containers closed when not in use.
- Prevent TLVs from being exceeded.
- Never use air/oil pressure to empty the product as the packaging is not designed for this.
- Ensure a clean workplace and safely remove waste materials on a regular basis.
- Keep an eye on the maximum weight if the product is being moved or used manually.

Storage:

- Observe instructions on label.
- Store in the original sealed packaging between +5°C and +30°C in a dry location away from heat sources. Protect against frost.
- Do not store the product near food, drink or animal feed. Keep out of the reach of children.
- The product polymerises in contact with air.

SECTION 8: Measures to manage exposure / personal protection

Measures:

- Ensure proper ventilation of the workplace.

Occupational Exposure Limits (OELs):

| Substance | TLVs | | | | Notes |
|-----------|-------------|-------------------|----------------|-------------------|-------|
| | 8 hours (1) | | 15 minutes (2) | | |
| | ppm | mg/m ³ | ppm | mg/m ³ | |
| Methanol | - | - | 250 | - | - |
| 1-Butanol | 20 | - | - | - | - |

(1) Exposure limit over the longer term – 8 hours on average

(2) Exposure limit over the shorter term – 15 minutes on average

OELs are taken from the current version of EH40.

Personal protection:

- Contact the local supplier of Personal Protective Equipment for advice on choosing adequate equipment for the work setting concerned.
- All Personal Protective Equipment (PPE), including respiratory equipment, used to prevent exposure to hazardous substances, must comply with the requirements of the COSHH regulations.

Breathing protection:

- If exposure to hazardous substances as stated in Section 8 cannot be controlled with natural ventilation, e.g. when working in closed areas, the air supply must be regulated using mechanical ventilation, insofar as that is practically possible. If this is not possible, respiratory equipment must be used.

Hand protection:

- If there is a risk of exposure to skin, a glove supplier must be consulted as to which type of glove is best to use. The instructions and information given by the supplier on the use, storage, maintenance and replacement of the gloves must be followed. Cream can be used to protect the exposed skin, but this is not suitable.

Eye protection:

- Wear suitable eye protection designed to protect against splashing liquids.

Skin protection:

- Cotton or cotton/synthetic overalls may be used. Very contaminated clothing must always be removed and the skin washed with water and soap or a recognised skin cleaner. Always wash your hands before eating, smoking or using the toilet.

Collective emergency measures:

- Safety shower - eye fountain

SECTION 9: Physical and chemical properties

- a) Physical condition: thixotropic paste
- b) Odour: light
- c) Colour: white, grey
- d) Flash point.: 117 °C (sealed cup, according to the AFNOR T 60103 method)
- e) Specific density: 1.35 – 1.45 g/cm³ (25 °C)
- f) Solubility in water: not mixable

SECTION 10: Stability and reactivity

Stability:

- Stable under recommended storage and usage conditions (Section 7)
- Vulcanises at room temperature on longer-term contact with air

Hazardous reactions:

- No hazardous reactions under normal conditions of use (see PDS)

Hazardous decomposition products:

- Combustion releases hazardous substances such as smoke and carbon oxides (CO and CO²). Keep away from oxidising agents and strongly alkaline or acidic materials to prevent exothermic reactions.

SECTION 11: Toxicological information

Not classified as hazardous when swallowed (according to calculation).

The product is classified in line with the common CHIP method and is classified due to toxicological risks. This takes account of any known delayed and direct effects and chronic effects of components from both short-term and long-term exposure through swallowing, inhalation, skin contact and eye contact. See sections 3 and 15 for details of the risk classification.

SECTION 12: Ecological information

There are no details available about the preparation itself. According to the component details, it is assumed that:

Biological decomposition:

- Not biodegradable

Bio accumulation:

- No potential for bio accumulation

Side effects:

- No persistent negative effects on water organisms tested.



It is not hazardous to the environment according to EC criteria. Do not drain it into the sewerage system or on surface waters or deposit it where it can affect surface water or groundwater. The product is not soluble in water.

SECTION 13: Instructions for disposal

Do not discharge into open water or into the sewerage system.
Waste, including empty tubes, is classified as controlled waste and must be disposed of in accordance with environmental regulations. The information on this information sheet can be used to obtain advice from the relevant body.

SECTION 14: Information relating to transport

Transport on-site - always transport upright in sealed packaging. Ensure that those who transport the product know what they have to do in the event of a calamity.

Further transport: transport in line with local / relevant regulations for transport by road, sea or air.

Correct technical name: The product is not classified as hazardous for transport:

UN Number:

Risk class:

Packaging group:

Sub-risk class:

SECTION 15: Regulatory information

The product is classified as non-hazardous according to the CHIP regulations. However, the following preventive measures must be observed:

S phrases:

| | |
|--------|---|
| S2 | Keep out of the reach of children |
| S24/25 | Avoid contact with skin and eyes. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S28 | After contact with skin, wash immediately with plenty of soap or skin cleaner. |
| S51 | Apply and dry only in well-ventilated areas. |

The information provided in this safety data sheet does not mean the user should refrain from assessing the working risks as stated in the Working Conditions Act. The provisions of this Act always apply when using this product.

SECTION 16: Other information

R phrases from Section 2:

| | |
|--------------|---|
| R10 | Flammable |
| R10 | Highly flammable |
| R20 | Harmful by inhalation |
| R22 | Harmful if swallowed |
| R23/24/25 | Toxic by inhalation, in contact with skin and if swallowed. |
| R36/37/38 | Irritating to eyes, respiratory system and skin. |
| R39/23/24/25 | Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. |
| R41 | Risk of serious damage to eyes |
| R67 | Vapours may cause drowsiness and dizziness. |

Warning symbols used in Section 2:

| | |
|----|-----------|
| C | Corrosive |
| Xn | Hazardous |

REFERENCE DOCUMENTS (statutory):

- Air Navigation (Dangerous Substances) Regulations
- Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling)
- Regulations 1996
- Carriage of Dangerous Goods by Road Regulations 1996 as amended
- Chemical (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP)
- Consumer Protection Act 1987
- Control of Pollution (Amendment) Act 1989
- Control of Substances Hazardous to Health Regulations 1999
- Environmental Act 1995
- Environmental Protection (Duty of Care) Regulations 1992
- Environmental Protection Act 1990
- Factories Act 1961
- Health and Safety at Work Act 1974
- International Rail/Road Transport - RID and ADR (Current Editions)
- Manual Handling Regulations 1992
- Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations
- Personal Protective Equipment at Work Regulations 1992
- Protection of Eyes Regulations 1974
- Provision and use of Personal Protective Equipment Regulations 1992
- Special Waste Regulations 1996
- Waste Management Regulations 1996

APPROVED CODES OF CONDUCT:

- ACOP - Control of Substances Hazardous to Health/Control of Carcinogenic Substances- HSE Books
- ACOP - Waste Management - The Duty of Care

HEALTH AND SAFETY REGULATIONS:

| | |
|----------|--|
| EH40 | Occupational Exposure Limits |
| HS(G)53 | Respiratory Protective Equipment - A Practical Guide for Users |
| HS(G)71 | Storage of Packaged Dangerous Substances |
| HS(G)193 | COSHH Essentials: steps to control chemicals |

BRITISH STANDARDS PUBLICATIONS:

| | |
|---------|--|
| BS2091: | Respirators for Protection Against Harmful Dusts and Gases |
| BS2092: | Eye Protection for Industrial and Non-Industrial Users |
| BS4067: | Breathing Apparatus |
| BS4275: | Recommendations for the Selection, Use and Maintenance of Respiratory Protective Equipment |
| BS7028: | Selection, use and Maintenance of Respiratory Protective Equipment |

This safety data sheet must be used in combination with technical data sheets. It does not replace them. The information provided is based on our knowledge of this product at the date of publication. It is provided in good faith.

The attention of the user is drawn to the potential risks associated with using this product for any other purpose than that for which it was intended.

This does not justify in any way a user operating beyond the knowledge and application of all instructions relating to his activities. It is the responsibility of the user to meet his obligations relating to the use of hazardous products.

This information is not exhaustive. This does not mean the user may negate statutory obligations other than those stated in relation to the use and storage of the product. This is his or her responsibility alone.

Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to independently determine the methods for protecting employees and the environment.