

PRODUCT SAFETY DATA SHEET

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

- 1.1. Product Name:** 3481 CATALYST
1.2. Use: Silicone Rubber Curing Agent
1.3. Address: MB-Fibreglass

TEL: 02890861992
FAX: 02820550188

2. COMPOSITION & INFORMATION ON INGREDIENTS

- 2.1. Chemical characterisation:** Organotin compound. (Preparation)

HAZARDOUS INGREDIENTS*

Name	CAS No.	%(w/w)	Symbols & Health Risk Phrases
Dibutyltin dilaurate	77-58-7	~ 4	TOXIC. (T) R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R34 Causes burns.
Methoxysilane	Mixture	~ 6	HARMFUL. (Xn) R22 Harmful if swallowed.
Tetrapropyl orthosilicate	682-01-9	~ 12	IRRITANT. (Xi) R36/38 Irritating to eyes and skin
Methoxysilane	Mixture	~ 1	TOXIC. (T) R25 Toxic if swallowed

*According to Commission Directive 88/379/EEC (Article 3[6a])

3. HAZARD IDENTIFICATION

Flammable
Harmful by inhalation, in contact with skin and if swallowed.
Irritating to eyes, skin and respiratory system.

4. FIRST AID MEASURES

- 4.1. Skin:** Flush with water for 15 minutes. Obtain medical attention.
4.2. Eyes: Flush with water for 15 minutes. Obtain medical attention.
4.3. Inhalation: Remove to fresh air. Obtain medical attention.
4.4. Ingestion: Note presence of methanol. Obtain medical attention.
4.5. Other first aid information: None known.

5. FIRE FIGHTING MEASURES

- 5.1. Extinguishing media:** Carbon dioxide, foam, dry powder or fine water spray.
5.2. Unsuitable extinguishing media: None known.
5.3. Unusual firefighting hazards: None known.
5.4. Special firefighting procedures: Self-contained respirator should be worn.
5.5. Other recommendations: None known.
5.6. Combustion products: Metal products. Silica, carbon dioxide and traces of incompletely burned carbon products.

6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions:** Eliminate all possible sources of ignition.
Wear proper protective equipment.
Ventilate area well. Avoid skin and eye contact.
Do not breathe vapour.
6.2. Precautions to protect the environment: None established, do not allow large quantities to enter drains.
6.3. Cleanup procedures: Mop, wipe or soak up with absorbent material and place in a container with a lid.

7. HANDLING AND STORAGE

- 7.1. Handling precautions:** Local ventilation is recommended. General ventilation is required. Avoid skin and eye contact. Do not breathe vapour.
7.2. Storage: Store in a flameproof well ventilated area. Keep container tightly closed.
7.3. Unsuitable packaging materials: None established.
7.4. Incompatibilities: None known.
7.5. Other information: None established.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- 8.1. Exposure controls:** Refer to section 7.
8.2. Exposure controls for hazardous components.

Name	CAS N o.	Exposure limits*
Dibutyltin dilaurate	77-58-7	0.10mg/m ³ (OES, 8hr TWA, as Sn). 0.20mg/m ³ (OES, 10min STEL, Sn) Sk.
Methoxysilane	Mixture	200ppm TWA. 250ppm STEL (as methanol)
Tetrapropyl orthosilicate	682-01-9	200ppm (OES, 8hr TWA). 250ppm (OES, 15min STEL as n-Proponal
Methoxysilane	Mixture	200ppm TWA. 250ppm STEL (as methanol)

- 8.3. Personal protective equipment:**
Respiratory: Organic Vapour mask.
Hand: Plastic or rubber gloves should be worn.
Eye: Safety glasses.
Skin: Protective equipment is not normally necessary.
Industrial Hygiene: Wash after handling, especially before eating, drinking or smoking. Exercise good industrial hygiene practise. Contaminated clothing must be washed before re-use.

*According to Health and Safety Executive document EH40.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Appearance:

Form: Liquid **Colour:** Colourless **Odour:** Slight

9.2. Safety related information

pH: Not determined.
Boiling point/boiling range: >150°C
Melting point/boiling range: Not determined.
Flashpoint: >38°C
Flammability: (solid, gas) Not determined.
Autoflammability: Not determined.
Explosive properties: Not determined.
Oxidising properties: Not determined.
Vapour pressure: <0.70 kPa
Specific gravity: 0.96
Solubility in water: -% w/w 10°C
Solubility in fat: Not determined.
Oil/water partition coefficient: Not determined.

Other data:

Vapour density (air = 1): >1
Evaporation rate (ethyl ether = 1): <1
Viscosity: 38 cst
% Volatiles: ~40
Molecular weight: Not determined.

10. STABILITY AND REACTIVITY

10.1. Stability: Stable
10.2. Reactivity:
Conditions to avoid: None known.
Materials to avoid: Can react with strong oxidising agents.
Methanol is liberated on contact with moisture.
Hazardous decomposition products: None known.

11. TOXICOLOGICAL INFORMATION

Possible Health Effects.

Skin: *Harmful in contact with skin. Irritant.
Eyes: *Irritating.
Inhalation: *Harmful by inhalation. Irritating to respiratory system.
Ingestion: *Harmful if swallowed. This material contains a methoxysilane or methoxysilane components. The supply hazard classification and labelling has been determined taking into account experimental data to indicate stoichiometric hydrolysis of these methoxysilanes to methanol on ingestion "in situ".

Other health hazard information: None known.

LC50: Not determined. **LD50:** Not determined.

*This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

12. ECOLOGICAL IMPACT

12.1. Elimination*

Persistence: Not known.

Degradability: Material will degrade in the environment abiotically, by chemical and physical processes.

12.2. Behaviour in the Aquatic compartment*

Mobility: Not applicable.

Bioaccumulation: Not known.

12.3. Ecotoxicity*

Aquatic: This product is a potential water pollutant. Do not allow large quantities to enter drains or surface waters.

Terrestrial: Not known.

*This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

13. WASTE DISPOSAL

13.1. Product disposal: Can be incinerated in accordance with local regulations.

13.2. Packaging disposal: Packaging should be disposed of in accordance with regional and/or national regulations.

14. TRANSPORT INFORMATION

UNNO: 1993 **LABEL:** FLAMMABLE LIQUID (IMO). MARINE POLLUTANT (IMO)

ROAD & RAIL TRANSPORT (ADR/RID)

CLASS: 3,31 (C) **HAZARD NAME:** FLAMMABLE LIQUID, N.O.S. (PROPOXYSILANE)

Tremcard: 30G35-A

SEA TRANSPORT (IMO)

CLASS: 3.3 **PACKING GROUP:** III

Ems: EMS 3-06 **MFAG:** 305

PROPER SHIPPING NAME: FLAMMABLE LIQUID, N.O.S. (PROPROXYSILANE)

IMO MARINE POLLUTANT: DIBUTYLTIN DILAURATE

AIR TRANSPORT (ICAO)

CLASS: 3 **PACKING GROUP:** III

PROPER SHIPPING NAME: FLAMMABLE LIQUID N.O.S. (PROPOXYSILANE)

15. REGULATORY INFORMATION

15.1. EEC Supply classification & Labelling:*

Contains:	METHOZYSILANES
HARMFUL:	(Xn)
R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38	Irritating to eyes, skin and respiratory system.
S16	Keep away from sources of ignition – No smoking.
R23(V)	Do not breathe vapour.
S24/25	Avoid contact with skin and eyes.
S51	Use only in well ventilated areas.

15.2. National legislation.

For product information in other EC languages, including appropriate national legislation, please contact the sales office at the above address.

15.3. Other regulations.

German waste number:	59507
German water class:	2 – Water pollutant.
German Vbf:	A 11
Ozone depleting chemicals:	No ozone-depleting chemical are present or used in manufacture.
EINECS:	All ingredients listed or exempt.
TSCA:	Not determined.
MITI:	Not determined.
DSL:	Not determined.
AICS:	All ingredients listed or exempt.

*According to 93/18/EEC as adapted for the 3rd time to technical progress commission directive 88/379/EEC.