

Product Trade Name: Metro Lab Putty Activator PAGE 1/8

Revision Date 21/11/15 Version 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Details of the supplier of the safety data sheet

Metrodent Limited

Lowergate Works, Lowergate Paddock, Huddersfield United Kingdom +44 1484 461616

sales@metrodent.com

2. COMPOSITION INFORMATION ON INGREDIENTS

Chemical nature Product based on: Mixtures of polydimethylsiloxanes, inert mineral fillers and organotin compounds. Components contributing to the hazard

Tetramethyl orthosilicate (CAS: 681-84-5): <5% -

Self-classification: R10 - T+; R26 - Xi; R41 EC N $^{\circ}$:211-656-4 Ethyl silicate (CAS: 78-10-4): <10% - EC Classification: R10 -

Xn; R20 - Xi; R36/37 (19 N) EC N°: 201-083-8

Silicic acid (H4SiO4), tetraethyl ester, reaction products with

bis(acetyloxy)dibutylstannane

(CAS: 93925-42-9): <10% - Self-classification: Repr. Cat. 2; R60 - R61; Muta. Cat. 3; R68 - T; R48/25 - Xn; R22 - Xi; R36/38 -

N; R51/53 EC N°:300-344-4

Ethyl acetate (CAS: 141-78-6): <2% - EC Classification: F; R11 - Xi; R36 - R66 -R67 (25 R) EC N°: 205-500-4 [*]

Further information

(N): New entry in the Adaptation to Technical Progres of Annexe I of Directive 67/548/EEC

R): Revision of the entry in the Adaptation to Technical Progress of Annexe I of Directive 67/548/EEC*

3. HAZARDS IDENTIFICATION

Adverse human health effects

Toxic by inhalation. [*]

Irritating to eyes and skin. [*]

May impair fertility.

May cause harm to the unborn child. Possible risk of irreversible effect.

Harmful.

Danger of serious damage to health by prolonged exposure if swallowed. [*]

Environmental effects

Harmful to aquatic organisms.

May cause long-term adverse effects to the aquatic environment. [*]

Physical and chemical hazards

Fire or explosion Flammable liquid. [*]

Further hazards

Ethanol (CAS: 64-17-5) - EC Classification: (19N): F; R11 EC No.: 200-578-6. Methanol (CAS: 67-56-1) - EC Classification: (25R): F; R11 - T; R23/24/25 -

R39/23/24/25 EC No.: 200-659-6.

Violent reactions may occur on contact with certain chemicals. (Refer to the list of incompatible materials section 10: "Stability-Reactivity"). [*]



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Specific hazards According to EC criteria, this product is classified as:

FLAMMABLE

TOXIC

TOXIC TO REPRODUCTION, Category 2

MUTAGEN, Category 3

HARMFUL IRRITANT

DANGEROUS FOR THE ENVIRONMENT [*]

4. FIRST AID MEASURES

Inhalation Move the person away from the contaminated area.

Make the affected person rest.

Obtain medical attention.

Show this sheet to the doctor. [*]

Skin contact Remove all contaminated clothing and footwear.

Wash with soap and water.

Wash immediately and thoroughly for a prolonged period (at least 15 minutes).

In case of inflammation (redness, irritation, ...) obtain medical attention.

Show this sheet to the doctor.

Eye contact Immediately rinse with plenty of running water for a prolonged period, (at least 15

minutes) whilst keeping the eyes wide open

If irritation persists, consult a doctor.

Show this sheet to the doctor. [*]

Ingestion NEVER attempt to induce vomiting.

Rinse mouth out with water. [*]

Further Information Place contaminated clothing in a sealed bag for disposal.

Use appropriate protective equipment when treating a contaminated person.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable: Water spray

Foam Powders

Carbon dioxide (CO2)

Not suitable: Strong water jet.

Specific fire fighting methods:

Cool down the containers/equipment exposed to heat with a water spray.

Specific hazards:

During combustion:

Toxic and highly flammable gases are released, which increase fire/explosion hazards.

Protection of fire-fighters:

Self-contained breathing apparatus.



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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Do NOT attempt to take action WITHOUT suitable protective equipment.

Personal protective equipment:

- eye/face protection (safety glasses + visor).

- filtering respiratory protective device.

Environmental precautions:

Do NOT discharge into drains or rivers.

Methods for cleaning up

Collect up the product and place it in a spare

- Recoverycontainer: - suitably labelled.

Keep the recovered product for subsequent disposal.

Neutralization: Neutralize non-recoverable product with:

- sand or inert absorbent.

Cleaning/Decontamination:

Decontaminate and wash the floor with an appropriate

self-emulsifying solvent. Then wash with plenty of water.

Disposal: Dispose of contaminated material at an authorized

7. HANDLING AND STORAGE

HANDLING

Technical measures:

Ventilation.

Measures: Avoid contact with moisture/humidity.

STORAGE

Technical measures: Does not require any specific or particular technical measures.

Storage conditions

- Recommended: Store

protected from humidity.in a cool, well-ventilated areathe container tightly closed.

To be avoided: Store away from incompatible materials.

Incompatible products:

Strong oxidizing agents.

Packaging: - Polyethylene liner in a metal drum varnished with epikote.

Packaging materials

- Recommended: Plastic materials (polyethylene, polypropylene).

Coated steels.

- Not suitable: Materials which are not solvent-resistant.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Ventilation.

Control parameters

Occupational exposure limits

Limits (U.S.A./A.C.G.I.H.) Organotin compounds:

TLV (TWA): 0.1 mg/m3. TLV (STEL): 0.2 mg/m3. (expressed as Sn).

Ethyl silicate: TLV (TWA): 10 ppm Ethanol: TLV (TWA): 1000 ppm Methanol: TLV (TWA): 200 ppm Methanol: TLV (STEL): 250 ppm Methyl silicate: TLV (TWA): 1 ppm [*]

Personal protective equipment

Respiratory protection:

If the ventilation is suitable, it is not essential to wear respiratory equipment.

In the event of insufficient ventilation:

Respiratory protective device with a gas filter.

Hand protection: Protective gloves made of PVC. -

Eye protection: Goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state : Slightly runny paste.
Colour : colourless or coloured. [*]

Odour: mint.

pH: Not applicable (insoluble product) [*]

Specific temperatures Flammability characteristics

Flash point: 21°C (Closed cup, according to method ASTM D-56).

Oxidizing properties: According to the data on the components

Not considered as oxidizing.

(evaluation by structure-activity relationship) [*]

Specific gravity: 0.98 g/cm3 at 25°C.

Solubility

Donationally in a declar

- in water : Practically insoluble.

Miscible (in all proportions) with:
- aromatic hydrocarbons.
- Aliphatic hydrocarbons.
- chlorinated solvents.
- in organic solvents:

10. STABILITY AND REACTIVITY

Hazardous reactions

Stability: Stable at room temperature.

- Materials to avoid : - strong oxidizing agents.

- Hazardous decomposition products : Reacts slowly on contact with water, releasing:

(Ethanol). (Methanol). [*]



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11.TOXICOLOGICAL INFORMATION

Local effects

Repeated dose toxicity

Acute toxicity

- Mutagenicity Possible risk of irreversible effects.

(by calculation according to the conventional method)

(internal evaluation) [*]

Specific effects

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

(by calculation according to the conventional method)

(internal evaluation) [*]

Not classified as sensitising by skin contact

(by calculation according to the conventional method)

(internal evaluation) [*]

Sensitisation:

Irritating to the skin.

Irritating to the eyes.

(Unpublished internal reports) [*]

Toxic by inhalation.

Not classified as harmful by contact with skin

(by calculation according to the conventional method)

(internal evaluation) [*]

LD 50 oral (Rat): > 2000 mg/kg.

Not classified as harmful if swallowed

(Unpublished internal reports) [*]

12. ECOLOGICAL INFORMATION

MOBILITY

BIOACCUMULATION

Effects on the aquatic environment: Organotin compounds:

Toxic to aquatic organisms.

(internal evaluation) [*]

Octanol/water partition coefficient

ECOTOXICITY

Expected behaviour of the product Ultimate destination of the product: SOIL and AIR [*]:

BIODEGRADABILITY

- Ultimate aerobic biodegradability According to the data on the components

Not readily biodegradable.

(internal evaluation) [*

Not applicable (preparation) [*]

This preparation is classified as:

Harmful to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

(by calculation according to the conventional method) [*]



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13. DISPOSAL CONSIDERATIONS

RESIDUES FROM PRODUCT

Destruction/Disposal: Dilute with a flammable solvent and incinerate at a licensed installation.

Conform to current legislation, regulations and orders.

Prohibition: Discharging waste into rivers and drains is forbidden.

CONTAMINATED PACKAGING

Decontamination/cleaning: Allow it to drain thoroughly.

Rinse with an appropriate solvent.

Recover the solvent used for rinsing and incinerate at a licensed site.

Destruction/Disposal: Dispose of at an approved site.

NOTE: The user's attention is drawn to the possible existence of local regulations regarding disposal.

14. TRANSPORT INFORMATION

INTERNATIONAL REGULATIONS

- Rail/road (RID/ADR) UN number: 1992

Proper Shipping Name (Technical Name): UN 1992 LIQUIDE

INFLAMMABLE, TOXIQUE,

N.S.A (contient des SILICATES ORGANIQUES et un COMPOSE ORGANOSTANNIQUE), 3 (6.1), II

Labelling: 3 (6.1). Packing group: II. Class/Division: 3 Subsidiary risk: 6.1

Hazard identification number: 336 [*] Sea (IMO/IMDG): UN Number: 1992

Proper Shipping Name (Technical Name): UN 1992

FLAMMABLE LIQUID, TOXIC, N.O.S. (contains ORGANIC SILICATES and an ORGANOTIN

COMPOUND), 3 (6.1), II Labelling: 3 (6.1). Packing group: II. Class/Division: 3 Subsidiary risk: 6.1 Marine pollutant: YES.

Emergency schedule (EmS): F-E, S-D. [*] Air (ICAO-IATA): UN number: 1992

Proper Shipping Name (Technical Name): UN 1992

FLAMMABLE LIQUID, TOXIC, N.O.S. (contains ORGANIC SILICATES and an ORGANOTIN

COMPOUND), 3 (6.1), II Labelling: 3 (6.1). Packing group: II. Class/Division: 3 Subsidiary risk: 6.1.

Passenger aircraft : Packing instruction: 305 - Maximum net quantity per package: 1 L

Cargo aircraft: Packing instruction: 307 - Maximum net quantity

per package: 60 L [*]

Land

Substance identification number: 1992. Classification for conveyance: 3.

Subsidiary risk: 6.1 Packing group: II.

Emergency action code: 3WE. - United Kingdom: Rail/road:



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15. REGULATORY INFORMATION

LABELLING EC regulations :

- Identification of the hazardous product

Contains:

Tetramethyl orthosilicate

Silicic acid (H4SiO4), tetraethyl ester, reaction products with

bis(acetyloxy)dibutylstannane [*]
- R phrases : R 10: Flammable.
R 23: Toxic by inhalation.

R 36/38: Irritating to eyes and skin.

R 48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.

R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

R 60: May impair fertility.

R 61: May cause harm to the unborn child. R 68: Possible risks of irreversible effects. [*]

Mandatory labelling (self-classification) of hazardous preparations: APPLICABLE

- S phrases: S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 53 : Avoid exposure - obtain special instructions before use. [*]

Handle in accordance with relevant British legislation:

Chemical Hazard Information and Packaging for Supply

Regulations

Control of Substances Hazardous to Health Regulations

Environmental Hygiene Guidance: EH/40 Workplace Exposure

Limits (revised annually). Environmental Protection Act

Collection and Disposal of Waste Regulations

Carriage of Dangerous Goods by Road Regulations

Carriage of Dangerous Goods by Rail Regulations

Carriage of Dangerous Goods by Road and Rail (Classification,

Packaging and Labelling) and use of Transport Pressure

Receptacles Regulations

United Kingdom:

>>Further regulations

- TOXIC (T) [*] - Classifications/Symbols



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16. OTHER INFORMATION

* Update: This sheet was updated (refer to the date at the top of this page).

Subheadings and text which have been modified since the previous version are indicated with an asterisk (*).

R Phrases of § 2 & 3 R 10: Flammable.

R 11: Highly flammable.

R 20: Harmful by inhalation.

R 22: Harmful if swallowed.

R 23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

R 26: Very toxic by inhalation.

R 36/37: Irritating to eyes and respiratory system.

R 36/38: Irritating to eyes and skin.

R 39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

R 41: Risk of serious damage to eyes.

R 48/25: Toxic: danger of serious damage to health by prolonged exposure if swallowed.

R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 60: May impair fertility.

R 61: May cause harm to the unborn child.

R 66: Repeated exposure may cause skin dryness or cracking.

R 67: Vapours may cause drowsiness and dizziness.

R 68: Possible risks of irreversible effects. [*]

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist. This is solely his responsibility.

END OF SAFETY DATA SHEET