



Metrodent

SAFETY DATA SHEET

Title: Metro Lab Putty Activator

Date Prepared: 5 August 2009

Date Revised: 29/11/2009

1 Product and company identification

Product Name Metro Lab Putty Activator
Supplier Metrodent Limited
Lowergate Works, Lowergate
Paddock, Huddersfield
HD3 4EP
Telephone +44 (0) 1484 461616
Email metrodent.com

2 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"). [*]

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 [*]

3 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° :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 Progress of Annex I of Directive 67/548/EEC
(R): Revision of the entry in the Adaptation to Technical Progress of Annex I of Directive 67/548/EEC [*]

**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 |
| Not Suitable | Carbon dioxide (CO ₂) water jet |
| Specific hazards | During combustion: Toxic and highly flammable gases are released, which increase Fire/explosion hazards. |
| Specific fire fighting methods | Cool down the containers/equipment exposed to heat with a water spray. |
| Protection of fire-fighters | Self-contained breathing apparatus. |

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. |
| Methods for cleaning up environmental precautions | Do NOT discharge into drains or rivers. |
| Cleaning/Decontamination | Decontaminate and wash the floor with an appropriate self-emulsifying solvent. Then wash with plenty of water. |
| Recovery | Collect up the product and place it in a spare container: - suitably labelled. Keep the recovered product for subsequent disposal. |
| Neutralization | - Neutralization: Neutralize non-recoverable product with - sand or inert absorbent. |
| Disposal | Dispose of contaminated material at an authorized site |



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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 area
- the container tightly closed.

To be avoided

Store away from incompatible materials.

Incompatible products

Strong oxidizing agents.

Packaging materials

Polyethylene liner in a metal drum varnished with epikote.

Recommended

Plastic materials (polyethylene, polypropylene).

Coated steels.

Not suitable

Materials which are not solvent-resistant.

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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 [*]

Limits (UK)

Methanol:

WEL: 200 ppm (266 mg/m³) (8h TWA).WEL: 250 ppm (333 mg/m³) (15 minute STEL).

(Sk - can be absorbed through the skin).

Tin compounds, organic (as Sn):

WEL: 0.1 mg/m³ (8h TWA).WEL: 0.2 mg/m³ (15 minute STEL).

(Sk - can be absorbed through the skin).

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
- in water Practically insoluble.
 - in organic solvents : Miscible (in all proportions) with:
 - aromatic hydrocarbons.
 - Aliphatic hydrocarbons.
 - chlorinated solvents.
- 10 **Stability and reactivity**
- Stability Stable at room temperature.
- Hazardous reactions
- Materials to avoid strong oxidizing agents.
 - Hazardous decomposition products
Reacts slowly on contact with water, releasing:
(Ethanol).
(Methanol). [*]
- 11 **Toxicological information**
- Acute toxicity 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) [*]
- Local effects Irritating to the skin.
Irritating to the eyes.
(Unpublished internal reports) [*]
- Sensitisation Not classified as sensitising by skin contact
(by calculation according to the conventional method)
(internal evaluation) [*]
- Repeated dose toxicity specific effects harmful:
danger of serious damage to health by prolonged exposure if swallowed.
(by calculation according to the conventional method) (internal evaluation) [*]
- Mutagenicity Possible risk of irreversible effects. (by calculation according to the conventional method) (internal evaluation) [*]
- Reproductive toxicity May affect fertility.
May cause harm to the unborn child.
(by calculation according to the conventional method) (internal evaluation) [*]

- 12 **Ecological information**
- MOBILITY**
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) [*]
- BIOACCUMULATION**
Octanol/water partition coefficient
Not applicable (preparation) [*]
- ECOTOXICITY**
Effects on the aquatic environment
Organotin compounds:
Toxic to aquatic organisms.
(internal evaluation) [*]
- Further information : 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) [*]
- 13 **Disposal considerations**
- RESIDUES FROM PRODUCT**
Prohibition Discharging waste into rivers and drains is forbidden.
Destruction/Disposal Dilute with a flammable solvent and incinerate at a licensed installation.
Conform to current legislation, regulations and orders.
- 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 [*]

OTHER REGULATIONS

United Kingdom:

Rail/road :Substance identification number: 1992.

Classification for conveyance: 3.

Subsidiary risk: 6.1

Packing group: II.

Emergency action code: 3WE.

NOTE : The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

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Regulatory information

LABELLING

EC regulations

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

Identification of the hazardous product

Contains: Tetramethyl orthosilicate

Silicic acid (H₄SiO₄), tetraethyl ester, reaction products with bis(acetyloxy)dibutylstannane [*]

Classifications/Symbols

TOXIC (T) [*]

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. [*]

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. [*]

Further regulations

United Kingdom

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



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Title: Metro Lab Putty Activator

Date Prepared: 5 August 2009

Date Revised: May 1998

NOTE : The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the Safety Data Sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

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Other information

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. [*]

* 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 (*).

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.