SAFETY DATA SHEET according to Regulation EC 1907/2006

3D RESIN CLEANER

Valid from 23/03/2016

Version 1



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

1.1. Product identifier Trade name : 3D RESIN CLEANER Substance name : (2-Methoxymethylethoxy)propanol CAS-No. : 34590-94-8 EC-No. : 252-104-2 EC Registration : 01-2119450011-60-xxxx

1.2. Relevant identified uses of the substance or mixture and uses advised against Use of the Substance/Mixture : Manufacture of substances, Industrial formulation, Intermediate, Coatings, Cleaning agent, Metal working fluids, Functional Fluids, Oil and gas, Laboratory chemicals, Use in agrochemicals Uses advised against : At this moment we have not identified any uses advised against

1.3. Details of the supplier of the safety data sheet Company

Thanet Coatings Ltd, 4 Patricia Way, Pysons Road Ind Est, Broadstairs CT10 2LF Telephone : +44 (0) 1843 861861 E-mail address : <u>info@thanet-coatings.co.uk</u>

1.4. Emergency telephone number Emergency telephone number : Emergency only telephone number (open 24 hours): +44 (0) 7949 948 345

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 The product is not classified as dangerous according to Regulation (EC) No. 1272/2008. Most important adverse effects Human Health : See section 11 for toxicological information.

Physical and chemical hazards : See section 9 for physicochemical information. Potential environmental effects : See section 12 for environmental information.

2.2. Label elements Labelling according to Regulation (EC) No 1272/2008 The product is not labeled as dangerous according to Regulation (EC) No. 1272/2008.

2.3. Other hazards For Results of PBT and vPvB assessment see section 12.5.

SECTION 3: Composition/information on ingredients

3.1. Substances

Hazardous Comps (2-Methoxymethylethoxy)propanol CAS-No. : 34590-94-8 EC-No. : 252-104-2 EC Registration : 01-2119450011-60-xxxx

Percentage <= 100

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : No special precautions required.

If inhaled : Remove to fresh air.

If breathing is irregular or stopped, administer artificial respiration. Get medical attention.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. High doses can lead to depression of Central Nervous System. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed Symptoms : See Section 11 for more detailed information on health effects and symptoms. Effects : Health injuries are not known or expected under normal use. See Section 11 for more detailed information on health effects and symptoms.

4.3. Indication of any immediate medical attention and special treatment needed Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray, foam, dry powder or CO2. Unsuitable extinguishing media : High volume water jet

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5.2. Special hazards arising from the substance or mixture Specific hazards during firefighting : Heating can release vapours which can be ignited. Vapours are heavier than air and may spread along floors. Mists can be combustible under the normal flashpoint. Cool closed containers exposed to fire with water spray. Hazardous combustion products : Carbon monoxide, Carbon dioxide (CO2)



5.3. Advice for firefighters Special protective equipment

for firefighters : In the event of fire, wear self-contained breathing apparatus. Choose protective equipment according to size of fire.

Further advice : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Personal precautions : Use personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

6.3. Methods and materials for containment and cleaning up Methods and materials for containment and cleaning up : Remove all sources of ignition. Soak up with inert, noncombustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite, acid binder, universal binder). Shovel into suitable container for waste disposal. Sweep up residues without creating dust. After cleaning flush away traces with water. Retain and dispose of contaminated wash water. The surface of the spill can be covered in order to reduce vaporization and thereby the fire hazard. Non-sparking tools should be used. Keep in suitable, closed containers for disposal. Further information : Treat recovered material as described in the section "Disposal considerations".

6.4. Reference to other sections See Section 1 for emergency contact information. See Section 8 for information on personal protective equipment. See Section 13 for waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Advice on safe handling : Keep container tightly closed. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Do not use sparking tools. Keep away from heat, flame sparks and other ignition sources. Ensure all equipment is electrically grounded before beginning transfer operations. Vapors may produce explosive mixtures with air at temperatures over the flash point. Hygiene measures : Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities Requirements for storage areas and containers : Store in original container. As it is moisture sensitive hence it should be stored under nitrogen gas. Advice on protection against fire and explosion : Normal measures for preventive fire protection. Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from open flames, hot surfaces and sources of ignition. Attention! The formation of organic peroxides is possible. Further information on storage conditions : Keep tightly closed



in a dry and cool place. Protect against water. Reacts with air to form peroxides. Advice on common storage : Keep away from food, drink and animal feeding stuffs. Incompatible with oxidizing agents. atmospheric oxygen

Suitable packaging materials : Carbon steel, lacquer lined steel/tin Unsuitable packaging materials : , Plastic, Rubber, Some synthetic materials may be unsuitable for containers or container linings. Compatibility should be checked with the manufacturer.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL Workers, Long-term - systemic effects, Skin contact : 65 mg/kg bw/day

DNEL Workers, Long-term - systemic effects, Inhalation : 310 mg/m3

DNEL Consumers, Long-term - systemic effects, Skin contact : 15 mg/kg bw/day

DNEL Consumers, Long-term - systemic effects, Inhalation : 37.2 mg/m3

DNEL Consumers, long-term, Ingestion : 1.67 mg/kg bw/day

PNEC

Fresh water (AF = 100) : 19 mg/l

Marine water (AF = 1000) : 1.9 mg/l

Intermittent releases (AF = 10) : 190 mg/l

Fresh water sediment : 70.2 mg/kg dry weight (d.w.)

Marine sediment : 7.02 mg/kg dry weight (d.w.)

Soil : 2.74 mg/kg dry weight (d.w.)

Sewage treatment plant (STP) (AF = 1) : 4168 mg/l

OTHER OCCUPATIONAL EXPOSURE LIMIT VALUES

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, Time Weighted Average (TWA): 50 ppm, 308 mg/m3 Indicative UK. EH40 Workplace Exposure Limits (WELs), Skin designation: Can be absorbed through the skin. UK. EH40 Workplace Exposure Limits (WELs), Time Weighted Average (TWA): 50 ppm, 308 mg/m3 ELV (IE), Time Weighted Average (TWA): 50 ppm, 308 mg/m3 Indicative OELV ELV (IE), Skin designation: Can be absorbed through the skin.

8.2. Exposure controls Appropriate engineering controls

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Respiratory protection Advice : If ventilation is insufficient, suitable respiratory protection must be provided Required, if exposure limit is exceeded (e.g. OEL).

In the case of vapour formation use a respirator with an approved filter.

Respiratory protection complying with EN 141. Filter Type : Combined particulates and organic vapour type Hand protection Advice : Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.

Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Protective gloves should be replaced at first signs of wear.

Material : butyl-rubber Break through time : >= 480 min Glove thickness : 5 mm

Eye protection Advice :



Safety goggles Skin and body protection Advice : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear appropriate chemical resistant clothing and boots.



Environmental exposure controls General advice :

Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : Liquid Colour : clear colourless Odour : ether-like Odour Threshold : no data available pH : no data available Melting point/range : -83 °C Boiling point/boiling range : 184 - 190 °C (1013 hPa) Flash point : 75 °C (1013 hPa) Evaporation rate : ca. 0.02 (Butyl Acetate = 1) Flammability (solid, gas) : no data available Upper explosion limit : no data available Lower explosion limit : no data available Vapour pressure : 0.4 hPa (20 °C) Relative vapour density : ca. 5.1 (16 - 32 $^{\circ}$ C) (Air = 1.0) Relative density : 0.95 - 0.96 (20 °C) Density : 0.539 g/cm3 (20 °C) Water solubility : (25 °C) completely soluble in all proportions Partition coefficient: n-octanol/water : log Kow 0.004 (25 °C) Auto-ignition temperature : 207 °C (1013 hPa) Thermal decomposition : no data available Viscosity, dynamic : ca. 4 mPa.s (25 °C) (Brookfield) Viscosity, kinematic : 4.55 mm2/s (20 °C) Explosivity : Product is not explosive. Oxidizing properties : no data available

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Advice :

May react with oxygen to form peroxides.

10.2. Chemical stability

Advice :

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions :

Possible formation of peroxide.

10.4. Conditions to avoid

Conditions to avoid :

Exposure to air.Keep away from heat and sources of ignition.

10.5. Incompatible materials

Materials to avoid :

Air, Humid air, Avoid excessive oxygen exposure. Incompatible with oxidizing agents. May form explosive peroxides.

10.6. Hazardous decomposition products

Hazardous decomposition products :

Carbon oxides, Under certain fire conditions, traces of other toxic products cannot be excluded.



SECTION 11:

Toxicological information

11.1. Information on toxicological effects

Component: (2-Methoxymethylethoxy)propanol CAS-No. 34590-94-8

Acute toxicity

Inhalation

LC50 : 3.35 mg/l (Rat; 7 h)

Irritation

Skin

Result : No skin irritation

Eyes

Result : No eye irritation

Sensitisation

Result : No sensitizing effect known.

CMR effects

CMR Properties

Mutagenicity : In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects

Teratogenicity : Did not show teratogenic effects in animal experiments.

Reproductive toxicity : It is not considered toxic for reproduction.





Specific Target Organ Toxicity

Single exposure

Remark : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Repeated exposure

Remark : The substance or mixture is not classified as specific target organ toxicant, repeated exposure

Other toxic properties

Repeated dose toxicity

LOAEL : >= 1000 mg/kg bw/day (Oral) Target Organs: Central nervous system, Liver

LOAEL : >= 4750 mg/kg bw/day (Dermal) Target Organs: Central nervous system, Liver

LOAEL : >= 300 ppm Target Organs: Central nervous system, Liver

Aspiration hazard

No aspiration toxicity classification,

SECTION 12: Ecological information

12.1. Toxicity



Component: (2-Methoxymethylethoxy)propanol CAS-No. 34590-94-8

Acute toxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 : 1919 mg/l (Daphnia magna (Water flea); 48 h)

Bacteria

EC10 : 4168 mg/l (Pseudomonas putida) (End point: Growth rate)

Chronic toxicity

Aquatic invertebrates

NOEC: 0.5 mg/l (Daphnia magna (Water flea); 22 d)

12.2. Persistence and degradability

Component: (2-Methoxymethylethoxy)propanol CAS-No. 34590-94-8

Persistence and degradability

Biodegradability

Result : 79 % (Exposure Time: 28 d) Readily biodegradable

12.3. Bioaccumulative potential

Component: (2-Methoxymethylethoxy)propanol CAS-No. 34590-94-8

Bioaccumulation

Result : log Kow 0.004 (25 °C) Bioaccumulation is not expected.

12.4. Mobility in soil



Component: (2-Methoxymethylethoxy)propanol CAS-No. 34590-94-8

Mobility

Water : The product is water soluble.

Soil : Highly mobile in soils

Distribution among environmental compartments

Soil : Koc: 10

12.5. Results of PBT and vPvB assessment

Data for the product

Results of PBT and vPvB assessment

Result :

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Component: (2-Methoxymethylethoxy)propanol CAS-No. 34590-94-8

Results of PBT and vPvB assessment

Result :

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6. Other adverse effects

Data for the product



Additional ecological information

Result : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.

Contaminated packaging : Dispose of contaminated packaging in the same way as the product. In accordance with local and national regulations.

European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION 14: Transport information

Not dangerous goods for ADR, RID, IMDG and IATA.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packaging group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code IMDG :

Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Further information

Key literature references and sources for data :

Supplier information and data from the "Database of registered substances" of the European Chemicals Agency (ECHA) were used to create this safety data sheet.

Other information :

The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship. The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

