

MATERIAL: TECHSIL® RTV12B

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| | | |
|------------|-----------------------------|---|
| 1.1 | Product Name: | Techsil® RTV12B |
| 1.2 | Supplier: | Techsil Ltd 34 Bidavon Industrial Estate Waterloo Road Bidford on Avon Warwickshire B50 4JN Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk |
| 1.3 | Emergency Telephone: | +44(0)7971 228794 |

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product this requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication

| | | |
|---|------|--|
| Flammable liquid, category 3 | H226 | Flammable liquid and vapour |
| Reproductive toxicity, category 2 | H361 | Suspected of damaging fertility or the unborn child. |
| Acute toxicity, category 4 | H302 | Harmful if swallowed. |
| Specific target organ toxicity – repeated exposure category 1 | H372 | Causes damage to organs through prolonged or repeated exposure |
| Aspiration hazard, category 1 | H304 | May be fatal if swallowed and enters airways. |
| Skin corrosion, category 1B | H314 | Causes severe skin burns and eye damage. |
| Serious eye damage, category 1 | H318 | Causes serious eye damage |
| Skin sensitization, category 1 | H317 | May cause an allergic skin reaction |

2.2 Label Elements:

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms



Signal words: Danger

Hazard statements:

| | |
|------|---|
| H226 | Flammable liquid and vapour. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H302 | Harmful if swallowed. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction |

Precautionary statements:

| | |
|------|---|
| P210 | Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No smoking. |
| P260 | Do not breathe dust / fume / gas / mist / vapours / spray. |

Contact Details

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
Contains: DIMETHYL TIN NEODECANOATE
NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY
AMINOPROPYL TRIETHOXYSILANE

2.3 Other Hazards:

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Information not relevant

3.2 Mixtures:

| Identification | Conc. % | Classification 1272/2008 (CLP) |
|--|--------------|---|
| NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY | | |
| CAS. | 64742-82-1 | 50-100 STOT RE 1 H372, Asp. Tox. 1 H304, Note P |
| EC. | 265-185-4 | |
| INDEX. | 649-330-00-2 | |

| AMINOPROPYL TRIETHOXYSILANE | | |
|------------------------------------|------------------|---|
| CAS. | 919-30-2 | 10-25 Acute Tox. 4 H302, Skin Corr. 1B H314 |
| EC. | 213-048-4 | |
| INDEX. | | |
| Reg. No. | 01-2119480479-24 | |

| ETHYL SILICATE | | |
|-----------------------|------------------|--|
| CAS. | 78-10-4 | 10-20 Flam. Liq. 3 H226, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE, H335 |
| EC. | 201-083-8 | |
| INDEX. | 014-005-00-0 | |
| Reg. No. | 01-2119496195-28 | |

| DIMETHYL TIN NEODECANOATE | | |
|----------------------------------|------------|--|
| CAS. | 68928-76-7 | 5-10 Repr. 2 H361fd, Acute Tox. 4 H302, STOT RE 1 H372, Aquatic Chronic 4 H413 |
| EC. | 273-028-6 | |
| INDEX. | | |

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice / attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by doctor.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2 Most Important Symptoms and Effects, both Acute and Delayed:

For symptoms and effects caused by the contained substances, see chap. 11.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed:

Information not available.

Contact Details

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2 Special Hazards Arising from the Substance or Mixture:

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3 Advice for Firefighters:

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Block the leakage if there is no hazard.

Wear suitable protective equipment (including person protective equipment referred to under section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2 Environmental Precautions:

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and Material for Containment and Cleaning-Up:

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7.

Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to Other Sections:

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Keep away from heat, sparks and naked flames do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

7.2 Conditions for Safe Storage, Including and Incompatibilities:

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3 Specific End Use(s):

Information not available.

SECTION 8: HANDLING AND STORAGE

8.1 Control Parameters:

Regulatory references:

| | | |
|-----|-----------------|--|
| CZE | Ceska Republika | Nařizení vlády č. 361/2007 Sb. - kterým se stanoví podmínky ochrany zdraví při práci |
| DEU | Deutschland | MAK-und BAT-Werte-Liste 2012 |
| DNK | Danmark | Graensevaerdier per stoffer og materialer |
| ESP | Espana | INSHT –Limites de exposicion professional para agentes quimicos en Espana 2015 |
| FIN | Suomi | HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet Sosiaali- ja terveystieteiden tutkimuskeskuksen julkaisuja 2012:5 |
| FRA | France | JORF n°0109 du 10 mai 2012 page 8773 texte n° 102 |
| NLD | Nederland | Databank of the social and Economic Council of Netherlands (SER) Values, AF 2011:18 |
| NOR | Norge | Veiledning om Administrative normer for forurensning I arbeidsatmosfaere |
| POL | Polska | ROZPORZADZENIE MINISTRA PRACY I POLITYKI SPOLECZNEJ z dnia 16 grudnia 2011r |
| | TLV-ACGIH | ACGIH 2014 |

NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY

Threshold Limit Value.

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | |
|------|---------|-----------------|-----|---------------------|-----|-------|
| VLA | ESP | 290 | 50 | 580 | 100 | SKIN. |
| NDS | POL | 300 | | 900 | | |

AMINOPROPYLTRIETHOXYSILANE

Predicated no-effect concentration – PNEC

| | | |
|--|-------|-------|
| Normal value in fresh water | 0.33 | mg/l |
| Normal value in marine water | 0.033 | mg/l |
| Normal value for fresh water sediment | 0.26 | mg/kg |
| Normal value for water, intermittent release | 3.3 | mg/l |
| Normal value of STP microorganisms | 13 | mg/l |
| Normal value for the terrestrial compartment | 0.04 | mg/kg |

Health – Derived no-effect level – DNEL/DMEL

| Route of exposure | Effects on consumers | | | Effects on Workers | | | Chronic systemic |
|-------------------|----------------------|----------------|---------------|--------------------|----------------|---------------|------------------|
| | Acute local | Acute systemic | Chronic Local | Chronic systemic | Acute systemic | Chronic local | |
| Inhalation | | | | | | VND | 59 mg/m3 |
| Skin | | | | | | VND | 8.3 mg/kg bw/d |

Contact Details

ETHYL SILICATE

| Threshold Limit Value. | | | | | |
|------------------------|---------|-----------------------------|-----|---------------------------------|-------|
| Type | Country | TWA/8h mg/m ³ | ppm | STEL/15min mg/m ³ | ppm |
| TLV | CZE | 50 | | 200 | |
| AGW | DEU | 12 | 1.4 | 12 | 1.4 |
| MAK | DEU | 86 | 10 | 86 | 10 |
| TLV | DNK | 85 | 10 | | |
| VLA | ESP | 87 | 10 | | |
| HTP | FIN | 86 | 10 | 170 | 20 |
| VLEP | FRA | 85 | 10 | | |
| OEL | NLD | 10 | | | |
| TLV | NOR | 85 | 10 | | SKIN. |
| NDS | POL | 80 | | | |
| TLV | ROU | 100 | | 200 | |
| OEL | EU | 44 | 5 | | |
| TLV-ACGIH | | 85 | 10 | | |

Health – Derived no-effect level – DNEL/DMEL

| Route of exposure | Effects on consumers | | | | Effects on Workers | | | |
|-------------------|----------------------|----------------|-------------------------|-------------------------|--------------------|----------------|-------------------------|-------------------------|
| | Acute local | Acute systemic | Chronic Local | Chronic systemic | Acute Local | Acute systemic | Chronic local | Chronic systemic |
| Inhalation | | | 25 mg/m ³ | 25 mg/m ³ | | | 85 mg/m ³ | 85 mg/m ³ |
| Skin | | | VND | 8.4 mg/kg bw/d | | | VND | 12.1 mg/kg bw/d |

Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

8.2 Exposure Controls:

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN166).

In the presence of risks of exposure or squirts during work, adequate mouth, nose and eye protection should be used prevent accidental absorption.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the workers exposure to the threshold values considered. The protection provided by masks in any case is limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

| | |
|--|-----------------------|
| Appearance | Liquid |
| Colour | Blue |
| Odour | Characteristic |
| Odour Threshold | Not available |
| pH. | Not available |
| Melting point/ freezing point | Not available |
| Initial boiling point | Not available |
| Boiling range | Not available |
| Flash point | >49°C |
| Evaporation Rate | Not available |
| Flammability of solids and gases | Not available |
| Lower inflammability limit | Not available |
| Upper inflammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | Not available |
| Solubility | Immiscible with water |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | 245°C |
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Explosive properties | Not available |
| Oxidising properties | Not available |

9.2 Other Information:

Information not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

There are no particular risks of reaction with other substances in normal conditions of use.

10.2 Chemical Stability:

The product is stable in normal conditions of use and storage.

10.3 Possibility of Hazardous Reactions:

The vapours may also form explosive mixtures with the air.

10.4 Conditions to Avoid:

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

Contact Details

10.5 Incompatible Materials:

Information not available.

10.6 Hazardous Decomposition Products:

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulations for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

| | |
|-----------------------------------|--|
| LC50 (Inhalation) of the mixture: | >20mg/l |
| LD50 (Oral) of the mixture: | 1634.37 mg/kg |
| LD50 (Dermal) of the mixture: | Not classified (no significant component). |

AMINOPROPYLTRIETHOXYSILANE

LD50 (Dermal). >2000 mg/kg

DIMETHYLTIN NEODECANOATE

LD50 (Oral). 894mg/kg OECD Test Guideline 401

ETHYL SILICATE

LD50 (Oral) >2500 mg/kg (Rat)

LD50 (Dermal) >2000 mg/kg (Rat)

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

LD50 (Oral). >5000 mg/kg Rat

LD50 (Dermal). >2000 mg/kg Rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENECITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Contact Details

REPRODUCTIVE TOXICITY

Suspected of damaging fertility or the unborn child

STOT-SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Toxic for aspiration

SECTION 12: ECOLOGICAL INFORMATION

No specific data is available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1 Toxicity.

AMINOPROPYLTRIETHOXYSILANE

EC50 – for Crustacea 331 mg/l/48h Daphnia magna

EC50 – for Algae / Aquatic plants >1000mg/l/72h Desmodesmus subspicatus (green algae)

ETHYL SILICATE

EC50 – for Crustacea >193 mg/l/48h (Desmodesmus subspicatus green algae)

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

LC50 – for Fish 8.2mg/l/96h Pimephales Promelas

EC50 – for Crustacea 4.5mg/l/48h Daphnia Magna

EC50 – for Algae / Aquatic Plants 3.1mg/l/72h Pseudokirchnerella Subcapitata

12.2 Persistence and Degradability:

ETHYL SILICATE

Solubility in water mg/l 1000-10000

Rapidly biodegradable.

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

Rapidly biodegradable.

12.3 Bioaccumulative Potential:

ETHYL SILICATE

Partition coefficient: n-octanol/water. 3.18

BCF. 3.16

12.4 Mobility in Soil:

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

Partition coefficient: soil/water 1.78

12.5 Results of PBT and vPvB Assessment:

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

12.6 Other Adverse Effects:

Information not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Reuse, when possible. Product residues should be considered special non-hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:

ADR/RID, IMDG, IATA: UN2920

14.2 UN Proper Shipping Name:

ADR/RID: CORROSIVE LIQUID, FLAMMABLE, N.O.S (Tetraethylsilicate, gamma-aminotriethoxysilane)

IMDG: CORROSIVE LIQUID, FLAMMABLE, N.O.S (Tetraethylsilicate, gamma-aminotriethoxysilane)

IATA: CORROSIVE LIQUID, FLAMMABLE, N.O.S (Tetraethylsilicate, gamma-aminotriethoxysilane)

14.3 Transport Hazard Class(es):

ADR/RID: Class: 8 Label: 8 (3)

IMDG: Class: 8 Label: 8 (3)

IATA: Class: 8 Label: 8 (3)



14.4 Packing Group:

ADR/RID, IMDG, IATA: II

14.5 Environmental Hazards:

ADR/RID: NO

IMDG: NO

IATA: NO

14.6 Special Precautions for User:

ADR/RID: HIN-Kemler: 83 Limited Quantities: 1L Tunnel restriction code: (D/E)

Special Provision:-

IMDG: EMS: F-E, S-E Limited Quantities: 1L

IATA: Cargo: Maximum Quantity: 30L Packaging instructions: 855

Pass: Maximum Quantity: 1L Packaging instructions: 851

Special instructions -

14.7 Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code:

Information not relevant.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:

Seveso category – Directive 2012/18/EC.

P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product

Point. 3-40

Substances in Candidate List (Art.59 REACH).

None

Substances subject to authorisation (Annex XIV REACH)

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention

None

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers health and safety are modest and that the 98/24/EC directive is respected.

15.2 Chemical Safety Assessment:

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16: OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet.

| | |
|-------------------|--|
| Flam. Liq. 3 | Flammable liquid, category 3 |
| Repr. 2 | Reproductive toxicity, category 2 |
| Acute Tox. 4 | Acute toxicity, category 4 |
| STOT RE 1 | Specific target organ toxicity – repeated exposure, category 1 |
| Asp. Tox. 1 | Aspiration hazard, category 1 |
| Skin Corr. 1B | Skin corrosion, category 1B |
| Eye Dam. 1 | Serious eye damage, category 1 |
| STOT SE 3 | Specific target organ toxicity – single exposure, category 3. |
| Aquatic Chronic 4 | Hazardous to the aquatic environment, chronic toxicity, category 4 |
| H226 | Flammable liquid and vapour |
| H361 | Suspected of damaging fertility or the unborn child. |
| H302 | Harmful if swallowed |
| H332 | Harmful if inhaled. |
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H304 | May be fatal if swallowed and enters airways |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H317 | May cause an allergic skin reaction |
| H413 | May cause long lasting harmful effects to aquatic life |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation (1272/2008)
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Global Harmonized System of classification and labelling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very Bioaccumulative as for REACH Regulation.

Contact Details

Techsil Ltd
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk
QF28 Rev 2 (June 2016)

-WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EU) 1272/2008 (CLP of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

The Merck Index – 10th Edition

Handling Chemical Safety

INRS – Fiche Toxicologique (toxicological sheet)

Patty – Industrial Hygiene and Toxicology

N.I. Sax – Dangerous properties of Industrial Materials-7, 1989 Edition

ECHA website

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

Page 11 of

MATERIAL: TECHSIL® RTV12A

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- 1.1 Product Name:** Techsil® RTV12A
- 1.2 Supplier:** Techsil Ltd
34 Bidavon Industrial Estate
Waterloo Road
Bidford on Avon
Warwickshire
B50 4JN
Tel: +44(0)1789 773232
Fax: +44(0)1789 774239
Email: sales@techsil.co.uk
- 1.3 Emergency Telephone:** +44(0)7971 228794

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the Substance or Mixture:**
The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).
- 2.2 Label Elements:**
This product is not subject to hazard labelling pursuant to EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).
- 2.3 Other Hazards:**
On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances:**
The product does not contain substances classified as being hazardous to human health or the environment pursuant to provisions Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require a statement.
- 3.2 Mixtures:**
Information not relevant.

SECTION 4: FIRST AID MEASURES

- 4.1 Description of First Aid Measures:**
Not specifically necessary. Observance of good industrial hygiene is recommended.
- 4.2 Most Important Symptoms and Effects, both Acute and Delayed:**
No episodes of damage to health ascribable to the product have been reported.
- 4.3 Indication of any Immediate Medical Attention and Special Treatment Needed:**
Information not available.

SECTION 5: FIREFIGHTING MEASURES

- 5.1 Extinguishing Media:**
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

Contact Details

5.2 Special Hazards Arising from the Substance or Mixture:

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3 Advice for Firefighters:

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous to health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2 Environmental Precautions:

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and Material for Containment and Cleaning-Up:

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to Other Sections:

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2 Conditions for Safe Storage, Including and Incompatibilities:

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3 Specific End Use(s):

Information not available.

SECTION 8: HANDLING AND STORAGE

8.1 Control Parameters:

Information not available.

8.2 Exposure Controls:

Comply with the safety measures usually applied when handling chemical substances.

HAND PROTECTION

None required.

SKIN PROTECTION

None required.

EYE PROTECTION

None required.

RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

| | |
|--|-----------------------|
| Appearance | Liquid |
| Colour | Colourless |
| Odour | Mild |
| Odour Threshold | Not available |
| pH. | Not available |
| Melting point/ freezing point | Not available |
| Initial boiling point | Not available |
| Boiling range | Not available |
| Flash point | >150°C |
| Evaporation Rate | Not available |
| Flammability of solids and gases | Not available |
| Lower inflammability limit | Not available |
| Upper inflammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | 0.97 Kg/l |
| Solubility | Immiscible with water |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Explosive properties | Not available |
| Oxidising properties | Not available |

9.2 Other Information:

Information not available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

There are no particular risks of reaction with other substances in normal conditions of use.

10.2 Chemical Stability:

The product is stable in normal conditions of use and storage.

10.3 Possibility of Hazardous Reactions:

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4 Conditions to Avoid:

None in particular. However the usual precautions used for chemical products should be respected.

10.5 Incompatible Materials:

Information not available.

10.6 Hazardous Decomposition Products:

Information not available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Information not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Information not available.

12.2 Persistence and Degradability:

Information not available.

Contact Details

12.3 Bioaccumulative Potential:

Information not available.

12.4 Mobility in Soil:

Information not available.

12.5 Results of PBT and vPvB Assessment:

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

12.6 Other Adverse Effects:

Information not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Reuse, when possible. Neat product residues should be considered special non-hazardous waste. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:

Not applicable.

14.2 UN Proper Shipping Name:

Not applicable.

14.3 Transport Hazard Class(es):

Not applicable.

14.4 Packing 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 MARPOL73/78 and the IBC Code:

Information not relevant.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:

Seveso category.

None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

None.

Substances in Candidate List (Art.59 REACH).

None

Substances subject to authorisation (Annex XIV REACH)

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 689/2008:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention

None

Healthcare controls.

Information not available.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

15.2 Chemical Safety Assessment:

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16: OTHER INFORMATION

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation (1272/2008)
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Global Harmonized System of classification and labelling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very Bioaccumulative as for REACH Regulation.
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EU) 1272/2008 (CLP of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

The Merck Index – 10th Edition

Handling Chemical Safety

INRS – Fiche Toxicologique (toxicological sheet)

Patty – Industrial Hygiene and Toxicology

N.I. Sax – Dangerous properties of Industrial Materials-7, 1989 Edition

ECHA website

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

MATERIAL: TECHSIL® RTV12B

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| | | |
|------------|-----------------------------|---|
| 1.1 | Product Name: | Techsil® RTV12B |
| 1.2 | Supplier: | Techsil Ltd 34 Bidavon Industrial Estate Waterloo Road Bidford on Avon Warwickshire B50 4JN Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk |
| 1.3 | Emergency Telephone: | +44(0)7971 228794 |

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product this requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication

| | | |
|---|--------|--|
| Flammable liquid, category 3 | H226 | Flammable liquid and vapour |
| Reproductive toxicity, category 2 | H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| Specific target organ toxicity – repeated exposure category 1 | H372 | Causes damage to organs through prolonged or repeated exposure |
| Aspiration hazard, category 1 | H304 | May be fatal if swallowed and enters airways. |
| Skin corrosion, category 1B | H314 | Causes severe skin burns and eye damage. |
| Serious eye damage, category 1 | H318 | Causes serious eye damage |

2.2 Label Elements:

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms



Hazard statements:

| | |
|--------|--|
| H226 | Flammable liquid and vapour. |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |

Precautionary statements:

| | |
|-----------|---|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No smoking. |
| P223 | Keep container tightly closed. |
| P280 | Wear protective gloves / clothing and eye / face protection. |
| P301+P310 | IF SWALLOWED: immediately call a POISON CENTER / doctor |
| P304+P340 | IF INHALED: remove person to fresh air and keep comfortable for breathing. |

Contact Details

Contains DIMETHYLTIN NEODECANOATE
NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY
AMINOPROPYLTRIETHOXYSILANE

2.3 Other Hazards:

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Information not relevant

3.2 Mixtures:

| Identification | Conc. % | Classification 1272/2008 (CLP) |
|--|--------------|---|
| NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY | | |
| CAS. | 64742-82-1 | 50-100 STOT RE 1 H372, Asp. Tox. 1 H304, Note P |
| EC. | 265-185-4 | |
| INDEX. | 649-330-00-2 | |

| AMINOPROPYLTRIETHOXYSILANE | | |
|-----------------------------------|-----------|---|
| CAS. | 919-30-2 | 10-25 Acute Tox. 4 H302, Skin Corr. 1B H314 |
| EC. | 213-048-4 | |
| INDEX. | | |

| ETHYL SILICATE | | |
|-----------------------|--------------|--|
| CAS. | 78-10-4 | 10-20 Flam. Liq. 3 H226, Acute Tox. 4 H332, Eye Irrit. 2 H319, STOT SE, H335 |
| EC. | 201-083-8 | |
| INDEX. | 014-005-00-0 | |

| DIMETHYLTIN NEODECANOATE | | |
|---------------------------------|------------|--|
| CAS. | 68928-76-7 | 5-10 Repr. 2 H361fd, Acute Tox. 4 H302, STOT RE 1 H372, Aquatic Chronic 4 H413 |
| EC. | 273-028-6 | |
| INDEX. | | |

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice / attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by doctor.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2 Most Important Symptoms and Effects, both Acute and Delayed:

For symptoms and effects caused by the contained substances, see chap. 11.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed:

Information not available.

Contact Details

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media:

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2 Special Hazards Arising from the Substance or Mixture:

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3 Advice for Firefighters:

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Block the leakage if there is no hazard.

Wear suitable protective equipment (including person protective equipment referred to under section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2 Environmental Precautions:

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3 Methods and Material for Containment and Cleaning-Up:

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7.

Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4 Reference to Other Sections:

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Keep away from heat, sparks and naked flames do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

Avoid leakage of the product into the environment.

7.2 Conditions for Safe Storage, Including and Incompatibilities:

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3 Specific End Use(s):

Information not available.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

SECTION 8: HANDLING AND STORAGE

8.1 Control Parameters:

Regulatory references:

| | | |
|-----|-----------------|--|
| CZE | Ceska Republika | Nařizení vlády č. 361/2007 Sb. - kterým se stanoví podmínky ochrany zdraví při práci |
| DEU | Deutschland | MAK-und BAT-Werte-Liste 2012 |
| DNK | Danmark | Graensevaerdier per stoffer og materialer |
| ESP | Espana | INSHT –Limites de exposicion profesional para agentes quimicos en Espana 2015 |
| FIN | Suomi | HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet Sosiaali- ja terveystieteiden tutkimuskeskuksen julkaisuja 2012:5 |
| FRA | France | JORF n°0109 du 10 mai 2012 page 8773 texte n° 102 |
| NLD | Nederland | Databank of the social and Economic Council of Netherlands (SER) Values, AF 2011:18 |
| NOR | Norge | Veiledning om Administrative normer for forurensning I arbeidsatmosfaere |
| POL | Polska | ROZPORZADZENIE MINISTRA PRACY I POLITYKI SPOLECZNEJ z dnia 16 grudnia 2011r |
| | TLV-ACGIH | ACGIH 2014 |

NAPHTHA (PETROL.) HYDRODESULFURIZED HEAVY

Threshold Limit Value.

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | |
|------|---------|-----------------|-----|---------------------|-----|-------|
| VLA | ESP | 290 | 50 | 580 | 100 | SKIN. |
| NDS | POL | 300 | | 900 | | |

ETHYL SILICATE

Threshold Limit Value.

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | |
|-----------|---------|-----------------|-----|---------------------|-----|-------|
| TLV | CZE | 50 | | 200 | | |
| AGW | DEU | 12 | 1.4 | 12 | 1.4 | |
| MAK | DEU | 86 | 10 | 86 | 10 | |
| TLV | DNK | 85 | 10 | | | |
| VLA | ESP | 87 | 10 | | | |
| HTP | FIN | 86 | 10 | 170 | 20 | |
| VLEP | FRA | 85 | 10 | | | |
| OEL | NLD | 10 | | | | |
| TLV | NOR | 85 | 10 | | | SKIN. |
| NDS | POL | 80 | | | | |
| TLV-ACGIH | | 85 | 10 | | | |

Legend:

(C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

8.2 Exposure Controls:

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves wear time depends on the duration and type of use.

Contact Details

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (see standard EN166).
In the presence of risks of exposure or squirts during work, adequate mouth, nose and eye protection should be used prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the workers exposure to the threshold values considered. The protection provided by masks in any case is limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

| | |
|--|-----------------------|
| Appearance | Liquid |
| Colour | Blue |
| Odour | Characteristic |
| Odour Threshold | Not available |
| pH. | Not available |
| Melting point/ freezing point | Not available |
| Initial boiling point | Not available |
| Boiling range | Not available |
| Flash point | >49°C |
| Evaporation Rate | Not available |
| Flammability of solids and gases | Not available |
| Lower inflammability limit | Not available |
| Upper inflammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | Not available |
| Solubility | Immiscible with water |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | 245°C |
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Explosive properties | Not available |
| Oxidising properties | Not available |

9.2 Other Information:
Information not available

Contact Details

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

There are no particular risks of reaction with other substances in normal conditions of use.

10.2 Chemical Stability:

The product is stable in normal conditions of use and storage.

10.3 Possibility of Hazardous Reactions:

The vapours may also form explosive mixtures with the air.

10.4 Conditions to Avoid:

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5 Incompatible Materials:

Information not available.

10.6 Hazardous Decomposition Products:

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulations for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible teratogenic effects, which may reduce human fertility and because of its possible teratogenic effects, which may be toxic and damage the foetus development.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and thus graded as dangerous.

The introduction of even small quantities of this liquid into the respiratory system in case of ingestion or vomit may cause bronchopneumonia and pulmonary edema.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, and irreversible eye coloration.

The vapours and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns sickness, diarrhoea, edema, larynx swelling and consequently asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, and irreversible eye coloration.

AMINOPROPYLTRIEHOXYSILANE

LD50 (Dermal). >2000 mg/kg

DIMETHYL TIN NEODECANOATE

LD50 (Oral). 904mg/kg OECD Test Guideline 401

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

LD50 (Oral). >5000 mg/kg Rat

LD50 (Dermal). >2000 mg/kg Rabbit

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

SECTION 12: ECOLOGICAL INFORMATION

No specific data is available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1 Toxicity.

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

| | |
|-----------------------------------|--|
| LC50 – for Fish | 8.2mg/l/96h Pimephales Promelas |
| EC50 – for Crustacea | 4.5mg/l/48h Daphnia Magna |
| EC50 – for Algae / Aquatic Plants | 3.1mg/l/72h Pseudokirchnerella Subcapitata |

12.2 Persistence and Degradability:

ETHYL SILICATE

Solubility in water mg/l 1000-10000
Rapidly biodegradable.

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

Rapidly biodegradable.

12.3 Bioaccumulative Potential:

ETHYL SILICATE

| | |
|---|------|
| Partition coefficient: n-octanol/water. | 3.18 |
| BCF. | 3.16 |

12.4 Mobility in Soil:

NAPHTHA (PETROL) HYDRODESULFURIZED HEAVY

| | |
|-----------------------------------|------|
| Partition coefficient: soil/water | 1.78 |
|-----------------------------------|------|

12.5 Results of PBT and vPvB Assessment:

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0.1%.

12.6 Other Adverse Effects:

Information not available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Reuse, when possible. Product residues should be considered special non-hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:

ADR/RID, IMDG, IATA: UN1268

14.2 UN Proper Shipping Name:

| | |
|----------|---|
| ADR/RID: | PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. |
| IMDG: | PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. |
| IATA: | PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. |

14.3 Transport Hazard Class(es):

| | | |
|----------|----------|----------|
| ADR/RID: | Class: 3 | Label: 3 |
| IMDG: | Class: 3 | Label: 3 |
| IATA: | Class: 3 | Label: 3 |



Contact Details

14.4 Packing Group:

ADR/RID, IMDG, IATA: III

14.5 Environmental Hazards:

ADR/RID: NO

IMDG: NO

IATA: NO

14.6 Special Precautions for User:

ADR/RID: HIN-Kemler: 30 Limited Quantities: 5L Tunnel restriction code: (D/E)

Special Provision:-

IMDG: EMS: F-E, S-E Limited Quantities: 5L

IATA: Cargo: Maximum Quantity: 220L Packaging instructions: 366

Pass: Maximum Quantity: 60L Packaging instructions: 355

Special instructions A3

14.7 Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code:

Information not relevant.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:

Seveso category.

6

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product

Point. 3-40

Substances in Candidate List (Art.59 REACH).

None

Substances subject to authorisation (Annex XIV REACH)

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention

None

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers health and safety are modest and that the 98/24/EC directive is respected.

15.2 Chemical Safety Assessment:

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16: OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet.

| | |
|-------------------|---|
| Flam. Liq. 3 | Flammable liquid, category 3 |
| Repr. 2 | Reproductive toxicity, category 2 |
| Acute Tox. 4 | Acute toxicity, category 4 |
| STOT RE 1 | Specific target organ toxicity – repeated exposure, category 1 |
| Asp. Tox. 1 | Aspiration hazard, category 1 |
| Skin Corr. 1B | Skin corrosion, category 1B |
| Eye Dam. 1 | Serious eye damage, category 1 |
| STOT SE 3 | Specific target organ toxicity – single exposure, category 3. |
| Aquatic Chronic 4 | Hazardous to the aquatic environment, chronic toxicity, category 4 |
| H226 | Flammable liquid and vapour |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child |
| H302 | Harmful if swallowed |
| H332 | Harmful if inhaled. |

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)

| | |
|------|--|
| H372 | Causes damage to organs through prolonged or repeated exposure |
| H304 | May be fatal if swallowed and enters airways |
| H314 | Causes severe skin burns and eye damage |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| H413 | May cause long lasting harmful effects to aquatic life |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation (1272/2008)
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Global Harmonized System of classification and labelling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very Bioaccumulative as for REACH Regulation.
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EU) 1272/2008 (CLP of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

The Merck Index – 10th Edition

Handling Chemical Safety

INRS – Fiche Toxicologique (toxicological sheet)

Patty – Industrial Hygiene and Toxicology

N.I. Sax – Dangerous properties of Industrial Materials-7, 1989 Edition

ECHA website

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy themselves as to the suitability of such information for their particular use.

Contact Details

Techsil Ltd

Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN

Tel: +44(0)1789 773232 Fax: +44(0)1789 774239 Email: sales@techsil.co.uk Web: www.techsil.co.uk

QF28 Rev 2 (June 2016)