Technical Data
A clear protective coating that can be applied to all surfaces to provide durability to existing coatings, protection of bare substrates and exceptional graffiti resistance.

**Physical data**

- **Colour**: Transparent
- **Finish**: Sheen
- **Substrates**: Concrete, tile, mortar, existing coatings, plaster, brick and metals, timber, etc.
- **Components**: 2 (resin + cure)
- **Curing mechanism**: Chemical reaction between components
- **Dry film thickness**: 25 - 50 microns
- **Number of coats**: 1 (usually)
- **Moisture permeability**: 35grm/ m²/24 hours
- **SG of mixed product**: 1.10 kg/L
- **VOC content**: <8% weight
- **Calculated coverage**: 33 m² per litre @ 25 microns
- **Practical coverage**: 9 - 33 m²
  - Dependant upon application losses, surface irregularities, porosity, waste, etc.
- **Application**:
  - By brush, roller, low pressure airless/airmix or conventional spray equipment.
- **Environmental conditions**:
  - **Air temperature**: 5°C to 50°C
  - **Surface temperature**: 5°C to 45°C
  - **Material temperature**: 5°C to 40°C
  - **Relative humidity**: >40%
  - To prevent condensation during application, surface temperature must be at least 3°C above dew point.
- **Pot life***: 4 hours at 20°C
  - * Pot life and touch dry times depend on temperature and quantities mixed.
- **Touch dry***: 4 hours @ 20°C (@25 microns dft)
- **Full chemical cure****: 7 days
  - **Do not attempt to clean the coating with any chemical until it has fully cured (7 days at 20°C)**
- **Storage life**: 12 months in cool, dry place in sealed containers
- **Equipment Cleaner**: Xylene
- **Inflammable**: no
- **Flash point**:
  - Resin > 97°C
  - Cure > 96°C
- **Packaging**:
  - Resin 3.75 l in 5 litre can
  - Cure 750ml in 1 litre can

**APPLICATION INSTRUCTIONS**

Coating performance is proportional to the degree of surface preparation. Surface must be clean and dry (<6% moisture), undamaged and free of all contaminants prior to coating. Prepare damaged areas to original surface preparation specifications, feathering edges of any damaged but intact coating system. For optimum application, temperature of the material should be between 10°C and 20°C prior to mix and application. Gradually add total contents of Cure tin into Resin tin and mix thoroughly to a uniform consistency. Apply one thin coat by brush or small roller without diluting. See below for spray instructions. Use a cross-lapping method of application to avoid misses and ensure corners and edges are covered. If the surface is porous do not attempt to cover with one application. Apply a thin coat, leave for 3 – 4 hours to partially reduce porosity, and then apply a second light and even coat.
## Technical Data

### Suggested preparation of substrates

<table>
<thead>
<tr>
<th>Substrates</th>
<th>Required treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaster</td>
<td>Surface must be dry</td>
</tr>
<tr>
<td>Aged coatings</td>
<td>All surfaces must be clean &amp; dry, tightly bonded and free of loose flakes (existing paint) and corrosion products</td>
</tr>
<tr>
<td>Brick / stone</td>
<td>All surfaces must be clean and dry and free of loose material</td>
</tr>
<tr>
<td>Timber etc</td>
<td>Ensure surfaces are clean and dry</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>Abrade, sweep blast or high pressure water blast to provide profile</td>
</tr>
<tr>
<td>Aluminium</td>
<td>Degrease followed by abrading, blasting or chemical conversion treatment</td>
</tr>
<tr>
<td>Galvanizing</td>
<td>Degrease followed by abrading or chemical conversion treatment</td>
</tr>
<tr>
<td>Concrete</td>
<td>New concrete - Acid etch or abrade to remove laitance</td>
</tr>
<tr>
<td></td>
<td>Aged concrete must be thoroughly cleaned.</td>
</tr>
</tbody>
</table>

### SPRAY APPLICATION METHOD

**Airless Spray:**

- Warm material before use to 20°C and pass mixed material through a 400 mesh filter.
- Set air pressure gauge at 15psi
- Set Pump pressure at 70psi
- Use a 6/11 tip
- Thin material with 5% of 900 thinner
- Spray two quick passes – one horizontal, one vertical.

**Pressure pot / conventional spray:**

- Warm material before use to 20°C and pass material through a 400 mesh filter.
- Set Compressor pressure gauge at 1.5 bar
- Set Pot Gauge at 1 bar
- Use the dial of the spray gun to regulate the volume of air into the gun
- The lower dial on the gun controls volume of fluid. Turning in reduces the amount of fluid
- The upper dial on the spray gun alters the fan width.
- Spray two quick passes – one horizontal, one vertical. Turn the spray tip to change vertical to horizontal spray pattern.
Benefits

**Resists graffiti and protects coatings**
Stops absorption of graffiti and enhances other Coated surfaces to provide long term durability.

**Apply to any surface!**
Compatible with clean metals, brick, concrete, tile, mortar, timber, plaster, etc or as a protection over existing coatings.

**Best value!**
One coat - easy application - permanent finish.

**Weathering and UV resistant!**
Up to 22 years protection.

**Stop using harmful chemical removers!**
Graffiti washes away with safe removal products.

**Tested by Materials Research Institute**
Proven effective against rigorous long term graffiti cleaning. No other product has passed the MRI test.

**Typical uses**
As a clear anti graffiti finish or durability coating on virtually any surface. Produces a permanent, easy clean surface. Increases the durability of existing coatings and extends the period required between redecoration. Excellent for high traffic areas such as corridors and stairwells.

**Outstanding Characteristics**
The superior hardness and excellent resistance to damage enables the removal of graffiti without harmful aggressive cleaner products. easy-on™ is user friendly and compliant with environmental legislation.

**Quality Assurance**
The long term experience and certified systems of the manufacturer guarantee a continuous product quality, optimum performance and dependable product supply.
Test Data

TEST RESULTS for easy-on

BS 476: Part 7: 1997 Surface spread of flame:
BRE test report 212022 - RTF/1747. The results of this test show easy-on achieved Class 1 when tested on a non combustible board.

BS 476: Part 6: 1989:
Fire propagation: BRE test report 212104 - RTF/1761 When tested, easy-on achieved a fire propagation index, 1, of 5.2 made up of sub indices i1 of 2.6, i2 of 1.9 and i3 of 0.7.

LUL Standard 2-01001-002:
Transfire Services Limited: Fire testing, smoke emission and toxic fume emission of easy-on coating was tested in accordance with London Underground Limited - Engineering Standard 2-01001-002 ‘Fire Safety Performance of Materials’. The stringent requirements for use in station and below ground locations were met and exceeded.

Incidental Food contact:
In January 1995 the United States Department of Agriculture evaluated the coating and declared it chemically acceptable for application to structural surfaces or surfaces where there is a possibility of incidental contact with meat or poultry food product.

Powder coatings:
Fire Test results over Syntha Pulvin - considered to meet the most stringent emission requirements.

Water permeability:
33gms moisture / 24 hours / m2. Testing conducted by SHU using an AC impedance test.

Graffiti Resistance:
Materials Research Institute - Centre for Corrosion Technology. easy-on was tested repeatedly with both aerosol paint and marker pen defacement. Each media was left on the surface for 24 hours before the cleaning operation. After each clean, the film thickness was measured and the results recorded. The same tests were repeated daily for both ink and paint. Results showed there was no effect of the cleaning operation on the integrity of the coating or film thickness measurements of the test panels. The result showed that the integrity of easy-on coating is not compromised by repeated cleaning operations.

RATP (Regie Autonome des Transports Parisiens):
The coating was classified in accordance with standard NF F 31-112 classifications M and F slipperiness, resistance to chemicals, ageing, UV etc.

BACTERIAL RESISTANCE / INFECTION CONTROL:
Seven major bacterial species were tested to establish the resistance of easy-on to common hospital acquired infections (HAI’s) Comparative testing was conducted on panels coated with either emulsion paint or acrylic paint as these finishes are commonly used on hospital walls and ceilings. The bacteria chosen were: Bacillus cereus, Staphylococcus aureus - subs aureus, Escherichia coli, salmonella enterica - subs enterica and Listeria monocytogenes.

Preparation of Panels:
Three sets of sample panels were coated with vinyl matt emulsion, vinyl matt emulsion over-coated with easy-on coating, and with acrylic paint. All panels were cleaned thoroughly with 1000 ppm of Precept solution prior to addition of bacterial cultures.

Addition of Bacteria:
Cultures of bacteria were incubated overnight at 37 °C and then diluted in culture media to achieve a bacterial concentration of 10^7 cells ml-1. 100 Î  of bacterial cultures were then added to each panel and incubated at room temperature for 30 minutes.

Following incubation panels were cleaned twice with sterile tissue soaked in 1000 ppm Precept solution. A general cleaning action was simulated with the panels being wiped vertically twice in each cleaning step. Panels were then placed face down on nutrient agar plates for 30 minutes to allow transfer of bacteria to the agar surface.

Panels were then removed and the plates incubated at 37 °C overnight. Bacterial colonies were then counted. The process was then repeated with the bacteria incubated on the panels for 3 days prior to cleaning.
Test Data

Results:
Panels coated with easy-on and subsequently cleaned with Precept solution showed no survival of bacterial species after 30 minutes and after three days incubation. After 30 minutes incubation followed by cleaning, E.coli, L. monocytogenes, Staph. aureus and B. cereus all exhibited survival on both the cleaned acrylic and the emulsion coated panels. Salm. enterica, K. pneumoniae and Ps. aeruginosa only showed survival on acrylic coated surfaces. Results after 3 days incubation were identical, with the same survival patterns present.

Conclusions:
All surfaces were submitted to a basic cleaning regime. All bacteria were removed from surfaces coated with easy-on. Surfaces coated with acrylic paint allowed survival of all seven bacterial species tested after cleaning. Surfaces coated with emulsion paint showed survival of Bacillus cereus, Staphylococcus aureus, Escherichia coli and Listeria monocytogenes.

NOTE:
Whilst some bacteria did not survive on the matt emulsion coated surfaces this may be due to the fact that when the emulsion surfaces were cleaned a minute layer of the paint unsurprisingly was also removed. This means that a section of the total surface was cleaned away with the bacteria and that everything was therefore removed. Clearly as a result of this, normal emulsioned walls suffer damage through cleaning and will need redecoration on a regular basis.

OTHER TESTS
Graffiti resistance ASTM D 523
Salt Spray resistance: ASTM B 117 & ISO 7253
Elongation (Conical Mandrel): ASTM D 522
Drying Times: ASTM D 1640
Volume Solids: ASTM D 2697
Adhesion ASTM D 3359 & ASTM D 4541 & ISO 4624
Taber Abrasion: ASTM D 4060 Impact Resistance: ASTM D 2794
QUV exposure: ASTM G 53 (Accelerated weathering)
Chemical Resistance ASTM G 20 (24hr exposure)
Health & Safety Data/SDS - Paint Resin

1. Identification
Product name: easy-on™ Protective coating (Resin component)
Supplier: Environmental Coatings Australasia PTY LTD, Sunbury, Victoria, 3429, Australia

2. Hazards identification
Hazardous components: Dimethyl, methoxyphenyl siloxane with phenyl silsesquixane methoxy-terminated
Epoxy resin (MW <=700)
Polymeric benzotriazole “A”
Polymeric benzotriazole “B”
R-phrase(s): Harmful if swallowed.
May cause sensitization by skin contact
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
P-phrases(s): Contains epoxy constituents. See information supplied by the manufacturer.

3. Composition
Components | EC No | CAS no. | Concentration | Classification
--- | --- | --- | --- | ---
Polymeric benzotriazole “A” | n/e | 104810-48-2 | >=1.00 - <2.50% | R43
Polymeric benzotriazole “B” | n/e | 104810-47-1 | >=1.00 - <2.50% | R43
Dimethyl, methoxyphenyl siloxane with phenyl silsesquixane methoxy-terminated | n/e | 68957-04-0 | >50.00 - <75.00% | Xn; R22
Epoxy Resin (MW <=700) | 500-070-7 | 30583-72-3 | >=10.00 - <25.00% | N; R51/53

4. First-Aid measures
In all cases of doubt, or when symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person.
Ingestion: If accidently swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
Eyes: Remove any contact lenses. Immediately flush eyes with running water for at least 10 minutes, keeping eyelids open.
Inhalation: Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice.
Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Burns: If spills on clothing catch fire, wash with plenty of water. Remove loose clothing. Do not remove clothing that has melted to the skin. Obtain medical attention.

5. Fire-fighting measures
Extinguishing Media: Recommended: alcohol resistant foam, CO2, dry chemical, water spray.
Extinguishing Media not to be used: water jet.
Specific hazards during fire fighting: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire fighting to drains or water courses.
Special protective equipment for fire fighters: In the event of fire wear self contained breathing apparatus.
6. Accidental release measures

**Personal precautions** Use personal protective equipment. Ventilate the area. Refer to protective measures listed in Sections 7 and 8. Wear respiratory protection. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Remove all sources of ignition.

**Environmental precautions** Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

**Methods for cleaning up** Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulation (see section 13). Clean with a detergent; avoid use of solvents.

**Additional advice** See section 15 for specific national regulation.

7. Handling and storage

**Handling**

**Safe handling advice** Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates and spray mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protective equipment (see Section 8).

**Advice on protection against fire and explosion** Good housekeeping standards will minimise the risk of spontaneous combustion and other fire hazards. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

**Storage** Observe label precautions. Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used. Store in accordance with local regulations. Store between 5 and 30°C (41 – 86F) in a cool, dry, well ventilated area away from incompatible materials and ignition sources. Keep away from OXIDIZING AGENTS, strong alkaline, strong acids. No smoking. Prevent unauthorized access. Containers must be carefully resealed and kept upright to prevent leakage. Do not empty into drains.

**Advice on common storage** Keep away from: OXIDIZING AGENTS and strongly alkaline or acid materials.

8. Exposure controls/personal protection

**Engineering measures**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

**Respiratory system** If workers, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. Where exposed to concentrations above the exposure limit they must use appropriate, air-fed respirators until such time as the vapour concentration has fallen below the exposure limits.

**Skin and body protection** Personnel should wear protective clothing. Skin should be washed after contact.

**Hands** For prolonged or repeated handling, use protective gloves. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Skin should be washed after contact. Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and microorganisms.

**Recommended gloves** Viton. Minimum breakthrough time: 480 min. The recommended gloves are based on the most common solvent in this product. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minute according to EN 374) is recommended.

**Eyes** Use chemical resistant eyewear designed to protect against splash of liquids.

**Environmental exposure** Refer to national regulations in chapter 15 for regulations on environmental protection.
9. Physical and chemical properties

Physical state: Liquid
Odour: Mild
Vapour density: >1 (Air = 1)
Colour: Clear
Flash point: Note not applicable
Explosion Limits:
   LOWER: 1% (V) 44.24 g/m³
   UPPER: 7% (V) 309.69 g/m³
Density: 1.14 g/cm³ (20°C)
Water solubility: no data available

10. Stability and reactivity

Conditions to avoid: Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
Hazardous Decomposition Products: carbon monoxide (CO), carbon dioxide (CO₂), dense black smoke, oxides of nitrogen (NOₓ).
Hazardous reactions: Keep away from the following materials in order to avoid strong exothermic reactions: OXIDIZING AGENTS, strong alkaline or strongly acid materials.

11. Toxicological information

Product information: There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 3 and 15 for details.

Acute oral toxicity: May cause nausea, abdominal spasms and irritation of the mucous membranes.

Acute inhalation toxicity: Exposure to components solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects. Such as mucous membrane irritation, respiratory system irritation, adverse effects on liver, kidney and central nervous system. Symptoms and signs: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness.

Skin irritation: Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may also be absorbed through the skin. Repeated skin contact may lead to irritation and to sensitization, possible with cross sensitization to other epoxies.

Eye contact: The liquid splashed in the eyes may cause irritation and reversible damage.

12. Ecological information

There are no data available on the preparation itself. Do not allow to enter drains or watercourses. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified as Harmful to the environment with long term adverse effects. The bio accumulative potential of this preparation has not been determined. See sections 3 and 5 for details.

13. Disposal considerations

Product: Do not allow to enter drains or watercourses. Dispose of residues and empty uncleaned packaging as hazardous.

Waste key for unused product: The European waste catalogue classification for this product when disposed of as waste is: 08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances. If this product is fully cured or mixed with other wastes, this code may no longer apply. If mixed with other wastes the appropriate code should be assigned.

14. Transport information

Always transport in closed containers that are upright labelled and secure. Not classified as dangerous in the meaning of the transport regulations. Transport to be in accordance with ADR for road, IMDG for sea and IATA for air transport.
Health & Safety Data/SDS - Paint Resin

15. Regulatory information
The product is classified and labelled in accordance with directive 1999/45/EC Indication of Danger

Risk Phrases
- R22  Harmful if swallowed.
- R34  Causes burns.
- R52/53  Harmful to aquatic organisms, may cause longterm adverse effects in the aquatic environment.

Safety Phrases
- S23  Do not breathe spray.
- S36/37  Wear suitable protected clothing and gloves.
- S38  In case of insufficient ventilation wear suitable respiratory equipment
- S61  Avoid release to the environment. Refer to special instructions / Safety data sheets

P-Phrases
- Contains epoxy constituents.

This information is provided does not constitute the users own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work Further information HS (G) 37, An introduction to Local Exhaust Ventilation, HSE., Health and Safety at Work Etc Act, 1974, and relevant Statutory Provisions., Environmental Protection Act, 1990 and associated legislation., The Hazardous Waste Regulations, 2005 and amendments. The Chemicals (Hazard Information and Packaging for Supply) Regulations, 2009 and amendments., EH 40, Occupational Exposure Limits, HSE. Revised annually., HS(G) 53, Respiratory Protective Equipment – A practical guide for Users, HSE., HS(G) 97, A Step guide to COSHH Regulations, HSE., EH 173, Monitoring Strategies for Toxic Substances, HSE.

16. Other information
Date of issue 23/04/2010.

Explanation of R-phases mentioned in Section 3
Polymeric benzotriazole “A”
- R43  May cause sensitization by skin contact.
- R48/22  Harmful: Danger of serious damage to health if prolonged exposure if swallowed
- R51/53  Toxic to aquatic organisms, may cause longterm adverse effects in the aquatic environment.

Polymeric benzotriazole “B”
- R43  May cause sensitization by skin contact.
- R51/53  Toxic to aquatic organisms, may cause longterm adverse effects in the aquatic environment.
- R48/22  Harmful: Danger of serious damage to health if prolonged exposure if swallowed

Dimethyl, methoxyphenyl siloxane
with phenyl silsesquixane
methoxy-terminated
- R22  Harmful if swallowed
Epoxy Resin (MW <=700)
- R51/53  Toxic to aquatic organisms, may cause longterm adverse effects in the aquatic environment.
- R43  May cause sensitization by skin contact.

The information of this SDS is based on the present state of our knowledge and on current EU and national laws. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products properties.
Health & Safety Data/SDS - Coating Cure

1. Identification
Product name: easy-on™ Protective coating (Cure component)
Supplier: Environmental Coatings Australasia PTY LTD, Sunbury, Victoria, 3429, Australia

2. Hazards identification
Hazardous components:
- 3-Aminopropyltriethoxysilane
- 3-(Trimethoxysilyl)propylamine

R-phrase(s):
- Harmful if swallowed.
- Causes burns

3. Composition

<table>
<thead>
<tr>
<th>Components</th>
<th>EC No</th>
<th>CAS no.</th>
<th>DSD</th>
<th>Concentration</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Aminopropyltriethoxysilane</td>
<td>213-048-4</td>
<td>919-30-2</td>
<td>19th</td>
<td>&gt;=50.00 - &lt;75.00%</td>
<td>Xn; R22, C; R34</td>
</tr>
<tr>
<td>3-(Trimethoxysilyl)propylamine</td>
<td>237-511-5</td>
<td>13822-56-5</td>
<td>6th</td>
<td>&gt;=25.00 - &lt;50.00%</td>
<td>C; R34</td>
</tr>
<tr>
<td>Dibutylbis(pentane-2,4-dionato-O,O')tin</td>
<td>245-152-0</td>
<td>22673-19-4</td>
<td>5th</td>
<td>&gt;=2.50 - &lt;10.00%</td>
<td>Xn: R48/22, Xi: R36/38, N: R51/53</td>
</tr>
</tbody>
</table>

Producer declares that for R-phrases not mentioned in chapters 3, the entire amount of hazardous substances is below limits. For components with an occupational threshold limit value see chapter 8. If multiple components with identical identifiers appear, these have different hazardous properties, eg flashpoint.

4. First-Aid measures
General: In all cases of doubt, or when symptoms persist, seek medical advice. Never give anything by mouth to an unconscious person.
Ingestion: If accidentally swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.
Eyes: Remove any contact lenses. Immediately flush eyes with running water for at least 10 minutes, keeping eyelids open.
Inhalation: Remove to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice.
Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Burns: If spills on clothing catch fire, wash with plenty of water. Remove loose clothing. Do not remove clothing that has melted to the skin. Obtain medical attention.

5. Fire-fighting measures
Extinguishing Media:
- Recommended: alcohol resistant foam, CO2, dry chemical, water spray.
- Not to be used: water jet.
Specific hazards during fire fighting:
- As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do NOT release runoff from fire fighting to drains or water courses.

Special protective equipment for fire fighters:
- In the event of fire wear self contained breathing apparatus.
6. Accidental release measures

Personal precautions Use personal protective equipment. Ventilate the area. Refer to protective measures listed in Sections 7 and 8. Wear respiratory protection. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Remove all sources of ignition.

Environmental precautions Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulation (see section 13). Clean with a detergent; avoid use of solvents.

Additional advice See section 15 for specific national regulation.

7. Handling and storage

Handling

Safe handling advice Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates and spray mist arising from the application of this preparation. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protective equipment (see Section 8).

Advice on protection against fire and explosion Good housekeeping standards will minimise the risk of spontaneous combustion and other fire hazards. Always keep in containers of same material as the original one. Comply with the health and safety at work laws. When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

Storage Observe label precautions. Keep container tightly closed. Keep away from heat, sparks and flame. No sparking tools should be used. Store in accordance with local regulations. Store between 5 and 30°C (41 – 86F) in a cool, dry, well ventilated area away from incompatible materials and ignition sources. Keep away from OXIDIZING AGENTS, strong alkalis, strong acids. No smoking. Prevent unauthorized access. Containers must be carefully resealed and kept upright to prevent leakage. Do not empty into drains.

Advice on common storage Keep away from: OXIDIZING AGENTS and strongly alkaline or acid materials.

8. Exposure controls/personal protection

Components on the national list and/or the European TLV list (98/24/EC)

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No</th>
<th>Value mg/m3</th>
<th>Value (ppm)</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutylbis(pentane-2,4-dionato-O,O’\text{’})tin</td>
<td>22673-19-4</td>
<td>0.1 mg/m3</td>
<td>EH40 WEL TWA (as Sn)</td>
<td></td>
</tr>
<tr>
<td>Can be absorbed through the skin</td>
<td>0.2 mg/m3</td>
<td>EH40 WEL STEL(as Sn)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Respiratory system If workers, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. Where exposed to concentrations above the exposure limit they must use appropriate, air-fed respirators until such time as the vapour concentration has fallen below the exposure limits.

Skin and body protection Personnel should wear protective clothing. Skin should be washed after contact.

Hands For prolonged or repeated handling, use protective gloves. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Skin should be washed after contact. Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and microorganisms.

Recommended gloves Viton. Minimum breakthrough time: 480 min. The recommended gloves are based on the most common solvent in this product. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minute according to EN 374) is recommended.

Eyes Use chemical resistant eyewear designed to protect against splash of liquids.

Environmental exposure Refer to national regulations in chapter 15 for regulations on environmental protection.

Personal protection

Protective Equipment P3A3 full face combi mask, safety gloves, safety suits and boots

Please contact your personal protection equipment supplier for further details.
9. Physical and chemical properties

Physical state  Liquid
Odour   Mild
Vapour density   >1 (Ar = 1)
Colour   Clear
Flash point   Note not applicable
Explosion Limits   LOWER: 5.5% (V) 73.43 g/m3
                 UPPER: 36.5% (V) 487.28 g/m3
Density   0.98 g/cm³ (20°C)
Water solubility   no data available
Flow time   >30 s at 23°C
Transversal section: 6 mm
Method: ISO 2431 (EN 535) 6mm CUP

10. Stability and reactivity

Conditions to avoid  Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
Hazardous Decomposition Products  carbon monoxide (CO), carbon dioxide (CO2), dense black smoke, oxides of nitrogen (NOx).
Hazardous reactions  Keep away from the following materials in order to avoid strong exothermic reactions: OXIDIZING AGENTS, strong alkaline or strongly acid materials.

11. Toxicological information

Product information  There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 3 and 15 for details.
Acute oral toxicity  May cause nausea, abdominal spasms and irritation of the mucous membranes.
Acute inhalation toxicity  Exposure to components solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects/ Such as mucous membrane irritation, respiratory system irritation, adverse effects on liver, kidney and central nervous system. Symptoms and signs: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness.
Skin irritation  Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may also be absorbed through the skin. Repeated skin contact may lead to irritation and to sensitization, possible with cross sensitization to other epoxies.
Eye contact  The liquid splashed in the eyes may cause irritation and reversible damage.

12. Ecological information

There are no data available on the preparation itself. Do not allow to enter drains or watercourses. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified as Harmful to the environment with long term adverse effects. The bio accumulative potential of this preparation has not been determined. See sections 3 and 5 for details.

13. Disposal considerations

Product  Do not allow to enter drains or watercourses. Dispose of residues and empty uncleaned packaging as hazardous.
Waste key for unused product  The European waste catalogue classification for this product when disposed of as waste is: 08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances. If this product is fully cured or mixed with other wastes, this code may no longer apply. If mixed with other wastes the appropriate code should be assigned.

14. Transport information

Always transport in closed containers that are upright labelled and secure. Not classified as dangerous in the meaning of the transport regulations. Transport to be in accordance with ADR for road, IMDG for sea and IATA for air transport

UN-Number   3066
Proper Shipping name   PAINT RELATED MATERIAL
Class   8
Packing Group   11
Label   8
Proper Shipping Name (ADR)   PAINT RELATED MATERIAL
Marine pollutant (IMDG)   -
EmS (IMDG)   F-A,S-B
14. Transport information
Limited Quantity (ADR) Max per inner pack 1.00 L
Max per outer pack 30.00 KG
Limited Quantity (IMDG) Max per inner pack 1.00 L
Max per outer pack 30.00 KG

15. Regulatory information
The product is classified and labeled in accordance with directive 1999/45/EC

Hazardous components which must be listed on the label
3-Aminopropyltriethoxysilane
3-(Trimethoxysilyl)propylamine

Safety Phrases
S23 Do not breathe spray.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39 Wear suitable protected clothing gloves and eye/face protection.
S38 In case of insufficient ventilation wear suitable respiratory equipment
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S61 Avoid release to the environment. Refer to special instructions / Safety data sheets

Risk Phrases
R22 Harmful if swallowed.
R34 Causes burns.
R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment

P-phrases
Contains epoxy constituents.

This information is provided does not constitute the users own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work. Further information HS (G) 37, An introduction to Local Exhaust Ventilation, HSE., Health and Safety at Work Etc Act, 1974, and relevant Statutory Provisions., Environmental Protection Act, 1990 and associated legislation., The Hazardous Waste Regulations, 2005 and amendments. The Chemicals (Hazard Information and Packaging for Supply) Regulations, 2009 and amendments., EH 40, Occupational Exposure Limits, HSE. Revised annually., HS(G) 53, Respiratory Protective Equipment – A practical guide for Users, HSE., HS(G) 97, A Step guide to COSHH Regulations, HSE., EH 173, Monitoring Strategies for Toxic Substances, HSE.

16. Other information
Date of issue 05/10/2010.

Explanation of R-phases mentioned in Section 3
3-Aminopropyltriethoxysilane R22 Harmful if swallowed
R34 Causes burns.
3-(Trimethoxysilyl)propylamine R34 Causes burns
Dibutylbis(pentane-2,4-dionato-O,O')tin R36/38 Irritating to eyes and skin
R48/22 Harmful: Danger of serious damage to health by prolonged exposure if swallowed
R51/53 Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

The information of this SDS is based on the present state of our knowledge and on current EU and national laws. The product is not to be used for other purposes than those specified under section 1 without first obtaining written handling instruction. It is always the responsibility of the user to take all necessary steps in order to fulfill the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product: it is not to be considered as a guarantee of the products properties.