Data Sheet: easy-on+ Anti Bacterial Paint

Anti bacterial coating combining two leading products - easy-on™ and Akacid® plus.

Akacid® plus biocide provides continuous protection from bacterial infection, MRSA, E. Coli, C. Diff and other HAI's as well as fungal growth including ESBL- producing Gram- negatives.

Akacid® plus is a member of the polymeric guanidine family of disinfectants developed to enhance antimicrobial activity with significantly less toxicity.

Physical data

<table>
<thead>
<tr>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Opaque cream</td>
</tr>
<tr>
<td>Finish</td>
<td>Clear sheen</td>
</tr>
<tr>
<td>Substrates</td>
<td>Concrete, tile, mortar, existing coatings, plaster, brick and metals, timber, etc.</td>
</tr>
<tr>
<td>Components</td>
<td>2 (resin + cure)</td>
</tr>
<tr>
<td>Curing mechanism</td>
<td>Chemical reaction between components</td>
</tr>
<tr>
<td>Dry film thickness</td>
<td>25 - 50 microns</td>
</tr>
<tr>
<td>Number of coats</td>
<td>1 (usually)</td>
</tr>
<tr>
<td>Moisture permeability</td>
<td>35grm/ m²/24 hours</td>
</tr>
<tr>
<td>SG of mixed product</td>
<td>1.12 kg/L</td>
</tr>
<tr>
<td>VOC content</td>
<td>&lt;8% weight</td>
</tr>
<tr>
<td>Calculated coverage</td>
<td>33 m² per litre @ 25 microns</td>
</tr>
<tr>
<td>Practical coverage</td>
<td>9 - 33 m²</td>
</tr>
</tbody>
</table>

Dependant upon application losses, surface irregularities, porosity, waste, etc

Application

<table>
<thead>
<tr>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>By brush, roller, HVLP or conventional spray equipment.</td>
<td></td>
</tr>
</tbody>
</table>

Environmental conditions

<table>
<thead>
<tr>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air temperature</td>
<td>5°C to 50°C</td>
</tr>
<tr>
<td>Surface temperature</td>
<td>5°C to 45°C</td>
</tr>
<tr>
<td>Material temperature</td>
<td>5°C to 40°C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>&gt;40%</td>
</tr>
</tbody>
</table>

To prevent condensation during application, surface temperature must be at least 3°C above dew point.

Pot life

4 hours at 20°C (depend on temperature and quantities mixed.)

Touch dry

4 hours @ 20°C (@25 microns dft) (time depends on climatic conditions and coating thickness)

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 or Gun Cleaner

Inflammable

no

Flash point

Resin > 97°C

Cure > 96°C

Packaging

<table>
<thead>
<tr>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin</td>
<td>3,750 l in 5 litre can</td>
</tr>
<tr>
<td>Cure</td>
<td>0,750 ml in 1 litre can</td>
</tr>
</tbody>
</table>

Publications (copies available on request)

- Biomedical Research Centre July 2009: Testing easy-on+ augmented with Akacid® plus
- Toxicol Sept 2006: Ultrastructural evidences of growth inhibitory effects of Akacid® plus
- Applied and Environmental Microbiology June 2006: Validation of Akacid® plus as a room disinfectant
- Journal of Hospital Infection Nov. 2005: In vitro antimicrobial activity of polymeric guanidine Akacid® plus
- European Society of Clinical Microbiology & Infectious Diseases April 2006: Room disinfection using Akacid® plus
- Antimicrobial Agents and Chemotherapy, Sept 2007: In Vivo Activity of Akacid® plus in experimental skin infection with MRSA
Benefits: easy-on+ Anti Bacterial Paint

Infection control paint
A long lasting alternative to silver ion technology
Incorporating Akacid®plus biocide
(Contains Guanidium chloride molecules to disrupt cell surfaces of bacteria)

• Outstanding Characteristics!
Proven easy-on™ technology – used worldwide
Eradi cates pathogenic organisms
Does not support colonization of bacteria.
MRSA related bacteria eradicated in 1 – 24 hours. ~97 – 99.7% reduction without additional cleaning.
In tests, Akacid solution eliminated all hospital pathogens within 340 min.
Coated surfaces do not support spores or fungal growth.

• Where to use!
Wherever infection control is required • Hospitals • Clinics • Health Care Buildings • Surgeries • Dental Practices • Veterinary Practices • Zoo’s • Laboratories • Pharmaceutical areas • Food Industry • etc……..

• Surfaces!
Suitable for almost any clean and dry building and finishing material or surface.
Frequently used to overcoat and upgrade existing paint finishes to reduce redecoration cycles.

• Cleanliness!
Easily cleaned with a wide range of products. Biocide works even after multiple cleaning steps.

• Simple!
One coat - easy application – quick drying - permanent durable finish – up to 22 years protection.

• Characteristics!
Durable chemical resistant finish with incredible abrasion resistance.
Unaffected by common cleaning chemicals and solvents.

• Cost Benefit!
Extends period between redecoration by years – saves money and reduces disruption

• Safe!
Safe during and after application - no residual smell or toxic fumes. User friendly and compliant with environmental legislation.

• Effective!
Resistant to growth of MRSA, E Coli, Salmonella, Listeria etc
Antimicrobial activity against pathogenic bacteria, spores and fungi

• Tested:
- Department of Internal Medicine, University of Vienna
- AKA Technology Vienna
- Forschungszentrum fur Medizintechnik und Biotechnologie Bad Langensalza
- Biomedical Research Centre, SHU, UK : longevity test results show ~97 – 99% bacteria count reduction of Escherichia Coli, Staphylococcus aureus. Tests include Enterococcus hirae, Pseudomonas aeruginosa, Candida Albicans and Aspergillus niger.
- Medizinische Universität Wien. Universitätsklinik für innere Medizin
Application Guide: easy-on+ Anti Bacterial Paint

Coating performance is proportional to the degree of surface preparation. Surfaces must be clean, dry (<6% moisture), undamaged and free of all contaminants prior to coating.

Many modern surfaces, especially when new, have a layer of grease, oil or other contaminants on them. To ensure good adhesion it is important these surfaces are thoroughly cleaned with a water based degreaser and that the degreaser used is then washed away before attempting to apply the coating. Both the contaminants and the degreaser can reduce adhesion so cleanliness must be considered critical.

- Prepare damaged areas to original surface preparation specifications, feathering edges of any intact coating system.
- For optimum application, temperature of the material should be between 20ºC and 30ºC prior to mix and application.
- Gradually add total contents of Cure tin into Resin tin and stir thoroughly to a uniform consistency.
- Apply one thin coat by brush or small roller without diluting. See below for spray instructions.
  (See technical data sheet for spreading rates)
- 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 think coat, leave for 3 – 4 hours to partially reduce porosity, then apply a second light and even coat.

SUGGESTED SURFACE PREPARATION:

- **Plaster** Surface must be dry
- **Stainless Steel** Abrade, sweep blast or high pressure water blast.
- **Aluminium** Degrease followed by abrading blast or chemical conversion treatment.
- **Galvanizing** Degrease followed by abrading or chemical conversion treatment.
- **Concrete** New concrete - Abrade to remove laitance.
  Aged concrete must be thoroughly cleaned.
- **Aged Coatings** All surfaces must be clean & dry, tightly bonded and free of loose flakes (existing paint) and corrosion products.
- **Brick/stone** All surfaces must be clean and dry and free of loose material.
- **Timber, etc** Ensure surfaces are clean and dry.

SPRAY INSTRUCTIONS:

With all spraying it is advisable to warm the material before use to 20°C and pass the mixed material through a 400 mesh filter. Use two quick passes; one horizontal and one vertical to ensure overall coverage.

**HVLP+ Walter pilot:**
- Use 2,2 bar pressure with the 1,8 mm nozzle.
- WFT should be between 25 and 40 microns.

**Conventional air spray (pressure pot):**
- Use 0,2 bar material pressure and 3,5 bar assisted air pressure.
- Apply the recommended WFT of around 25/30 microns.

ALWAYS CLEAN OUT THE UNIT THOROUGHLY WHEN FINISHED SPRAYING. LEAVE SMALL AMOUNT OF CLEANER IN THE SPRAY POT.
SDS: easy-on+ Anti Bacterial Paint Resin

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

1.1 Product identifier easy-on+cure
Other means of identification: Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Product use: coating applications.
Use of the substance: Coating.

1.3 Details of the supplier of the safety data sheet
Urban Hygiene Ltd, Sky Business Park, Robin Hood Airport, Doncaster, DN9 3GN, UK
Tel: +44 01302 623193
Fax: +44 01302 623167
E-mail address of person responsible for this SDS: enquiries@urbanhygiene.com

1.4 Emergency telephone number
Telephone: +31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Product definition: Mixture
Classification according to Directive 1999/45/EC [DPD]
The product is classified as dangerous according to Directive 1999/45/EC and its amendments.
Classification: Xn; R22
R43
R52/53

Human health hazards: Harmful if swallowed. May cause sensitisation by skin contact
Environmental hazards: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
Hazard symbol or symbols:

Indication of danger: Harmful
Risk phrases:
R22: Harmful if swallowed.
R43: May cause sensitisation by skin contact.
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S23: Do not breathe vapour or spray.
S24: Avoid contact with skin.
S37: Wear suitable gloves.
S38: In case of insufficient ventilation, wear suitable respiratory equipment.
**Hazardous Ingredients:** Proprietary silicone

- 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2, 3-epoxypropane
- Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy-
- Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxoproxy]

**Supplemental label elements:** Not applicable.

**Special packaging requirements:** Containers to be fitted with child-resistant fastenings: Not applicable.

**Tactile warning of danger:** Not applicable.

### 2.3 Other hazards

Other hazards which do not result in classification: None known.

### SECTION 3: Composition/information on ingredients

**Product/mixture:** Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary silicone</td>
<td>-</td>
<td>50 - &lt;75</td>
<td>Xn; R22</td>
</tr>
<tr>
<td>4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2, 3-epoxypropane</td>
<td>EC: 500-070-7 CAS: 30583-72-</td>
<td>2.5 - &lt;25</td>
<td>R43 N; R51/53</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy-Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxoproxy]-</td>
<td>CAS: 104810-48-2</td>
<td>1 - &lt;2.5</td>
<td>R43 N; R51/53</td>
</tr>
<tr>
<td></td>
<td>CAS: 104810-47-1</td>
<td>1 - &lt;2.5</td>
<td>R43 N; R51/53</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Type
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures
4.1 Description of first aid measures
Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

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.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of First-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed
Potential acute health effects
Eye contact: No known significant effects or critical hazards.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: May cause sensitisation by skin contact.

Ingestion: Harmful if swallowed.

Over-exposure signs/symptoms
Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:
- Irritation
- Redness

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed
Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures
5.1 Extinguishing media
Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture
Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- nitrogen oxides
- halogenated compounds
- metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for firefighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

6.3 Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Collect and dispose spillage using non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections
See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.
SECTION 7: Handling and storage
The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling
Protective measures: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities: Storage temperature: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)
Recommendations: Not available.
Industrial sector specific solutions: Not available.

SECTION 8 Exposure controls/personal protection
The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters Occupational exposure limits No exposure limit value known.
Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs: DNELs - Not available.
PNECs: PNECs - Not available.
8.2 Exposure controls

Appropriate engineering controls: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures:

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety glasses with side shields.

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves: butyl rubber

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state: Liquid.

- Colour: Not available.
- Odour: Characteristic.
- Odour threshold: Not available.
- pH: Not available.
9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy-</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>5800 mg/m3</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

Acute toxicity: Conclusion/Summary: Not available.
Irritation/Corrosion: Conclusion/Summary: Not available.
Sensitiser: Conclusion/Summary: Not available.
Mutagenicity: Conclusion/Summary: Not available.
Carcinogenicity: Conclusion/Summary: Not available.
Reproductive toxicity: Conclusion/Summary: Not available.
Teratogenicity: Conclusion/Summary: Not available.
Information on the likely routes of exposure: Not available.

Potential acute health effects:

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion: Harmful if swallowed.

Skin contact: May cause sensitisation by skin contact.

Eye contact: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No specific data.

Ingestion: No specific data.

Skin Contact: Adverse symptoms may include the following:
  - irritation
  - redness

Eye contact: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure:

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Long term exposure:

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Potential chronic health effects: Not available.

Conclusion/Summary: Not available.

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Other information: Not available.

There is no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 4,4'-Isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-w-hydroxy-, Poly(oxy-1,2-ethanediyl), a-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-. May produce an allergic reaction.
SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary: Not available.

12.2 Persistence and degradability
Conclusion/Summary: Not available.

12.3 Bioaccumulative potential
Bioaccumulative potential: Not available.

12.4 Mobility in soil
Mobility: Not available.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects
No known significant effects or critical hazards.

SECTION 13: Disposal considerations
The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods
Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste product residues should not be disposed of via the sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste: Yes.

European waste catalogue (EWC)

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 01 11*</td>
<td>waste paint and varnish containing organic solvents or other dangerous substances</td>
</tr>
</tbody>
</table>

Packaging
Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

<table>
<thead>
<tr>
<th>Type of packaging</th>
<th>European waste catalogue (EWC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>15 01 06 mixed packaging</td>
</tr>
</tbody>
</table>

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
SECTION 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>ADN</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>None.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>None.</td>
<td>None.</td>
<td>None.</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Transport within user’s premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
<td>Transport within user’s premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
<td>Transport within user’s premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
</tr>
</tbody>
</table>

Additional information
ADR Viscosity Remarks: Not available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation(EC) No.1907/2006(REACH)
Annex XIV-List of substances subject to authorisation
Substances of very high concern
Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.

Other EU regulations
15.2 Chemical Safety Assessment: No Chemical Safety Assessment has been carried out.
SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Full text of abbreviated H statements:
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]:
Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4
Aquatic Chronic 2, H411 AQUATIC TOXICITY (CHRONIC) - Category 2
Aquatic Chronic 3, H412 AQUATIC TOXICITY (CHRONIC) - Category 3
Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1

Full text of abbreviated R phrases:
R22- Harmful if swallowed.
R43- May cause sensitisation by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD]:
Xn - Harmful
N - Dangerous for the environment

History:
Date of revision: 11 April 2013
Date of previous issue: 8 November 2012
Prepared by: RJ
Version: 2.01

Disclaimer:
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. If data is more than 12 months old then data should only be used after checking with Urban Hygiene office.

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.
SDS: easy-on+ Anti Bacterial Paint Cure

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

1.1 Product name: easy-on+ Cure
Other means of identification: Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Product use: Professional applications.
Use of the substance: Coating.

1.3 Details of the supplier of the safety data sheet
Urban Hygiene Ltd, Sky Business Park, Robin Hood Airport, Doncaster, DN9 3GN, UK
Tel: +44 01302 623193
Fax: +44 01302 623167
E-mail address of person responsible for this SDS: enquiries@urbanhygiene.com

1.4 Emergency telephone number: +31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Product definition: Mixture
Classification according to Directive 1999/45/EC [DPD]
The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification:
Xn; R22
C; R34
R52/53

Human health hazards: Harmful if swallowed. Causes burns.
Environmental hazards: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements
Hazard symbol or symbols:

Indication of danger: Corrosive
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.

Safety phrases:
S23- Do not breathe vapour or spray.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S38- In case of insufficient ventilation, wear suitable respiratory equipment.
S49- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

Hazardous ingredients: Proprietary silane
Supplemental label elements: Not applicable.
Special packaging requirements
Containers to be fitted with child-resistant fastenings: Not applicable.
Tactile warning of danger: Not applicable.
2.3 Other hazards
Other hazards which do not result in classification: None known.

SECTION 3: Composition/information on ingredients
Substance/mixture: Mixture

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary silane</td>
<td>-</td>
<td>50 -</td>
<td>Xn; R22 C; R34</td>
<td>Acute Tox. 4, H302</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;75</td>
<td></td>
<td>Skin Corr. 1B, H314</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Repr. 2, H361fd</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT RE 2, H373</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 3, H412</td>
<td></td>
</tr>
<tr>
<td>Proprietary silane</td>
<td>-</td>
<td>25 -</td>
<td>C; R34</td>
<td>Acute Tox. 4, H302</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;35</td>
<td></td>
<td>Skin Corr. 1B, H314</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td>dioclyltin dilaurate</td>
<td>EC: 222-883-3 CAS: 3648-18-0</td>
<td>1 -</td>
<td>Xn; R48/22 R53</td>
<td>Acute Tox. 4, H302</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1B, H314</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
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<td></td>
<td></td>
<td>Repr. 2, H361fd</td>
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<td></td>
<td></td>
<td>STOT RE 2, H373</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 3, H412</td>
<td></td>
</tr>
<tr>
<td>dibutylbis(pentane-2, 4-dionato-O,O')tin</td>
<td>EC: 245-152-0 CAS: 22673-19-4</td>
<td>0.25 - 0.5</td>
<td>Muta. Cat. 3; R68 Repr. Cat. 2; R60, T; R48/25 N; R50/53</td>
<td>Acute Tox. 4, H302</td>
<td>[1]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1C, H314</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Dam. 1, H318</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Muta. 2, H341</td>
<td></td>
</tr>
<tr>
<td>Poly-[2-(2-ethoxy)-ethox yethyl]-guaninidnuim</td>
<td>374572-91-5</td>
<td>&lt;5</td>
<td>N: R50/53</td>
<td>STOT SE 1, H370</td>
<td></td>
</tr>
<tr>
<td>Poly-(hexamethyl)enediamine-guaniniduum</td>
<td>57028-96-3</td>
<td>&lt;5</td>
<td>N: R50/53</td>
<td>STOT RE 1, H372</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute 1, H400</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 1, H410</td>
<td></td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

**Type**

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

**SUB codes represent substances without registered CAS Numbers.**
SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

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.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of First-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: Corrosive to eyes. Causes burns.

Inhalation: May give off gas, vapour, or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact: Corrosive to the skin. Causes burns.

Ingestion: Harmful if swallowed. May cause burns to the mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

- Pain
- Watering
- Redness

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following:

- Pain or irritation
- Redness
- Blistering may occur

Ingestion: Adverse symptoms may include the following:

- Stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products: Decomposition products may include the following materials:

- Carbon dioxide
- Carbon monoxide
- Nitrogen oxides
- Metal oxide/oxides
5.3 Advice for firefighters

Special precautions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for firefighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

6.3 Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities: Storage temperature: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)
Recommendations: Not available.
Industrial sector specific solutions: Not available.

SECTION 8 Exposure controls/personal protection
The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters
Occupational exposure limits No exposure limit value known.
Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
DNELs: DNELs - Not available.
PNECs: PNECs - Not available.

8.2 Exposure controls
Appropriate engineering controls: If user operations generate dust, fumes, gas, vapour, or mist, use process enclosures, local exhaust ventilation or any other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures:
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection: Chemical splash goggles and face shield.
Skin protection
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves: nitrile, neoprene.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:
- Physical state: Liquid.
- Colour: Not available.
- Odour: Aromatic. [Strong]
- Odour threshold: Not available.
- pH: Not available.
- Melting point: Not available.
- Freezing point: Not available.
- Initial boiling point and boiling range: >37.78°C
- Flash point: Closed cup: Not applicable.
- Evaporation rate: Not available.
- Material supports combustion: Yes.
- Flammability (solid, gas): Not available.
- Upper/lower flammability or explosive limits: Lower: 5.5%, Upper: 36.5%
- Relative density: 0.97
- Solubility(ies): Insoluble in the following materials: cold water.
- Partition coefficient n-octanol/ water: Not available.
- Auto-ignition temperature: Not available.
- Decomposition temperature: Not available.
- Viscosity: Not applicable
- Explosive properties: Not available.
- Oxidising properties: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: When exposed to high temperatures may produce hazardous decomposition products.

Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6 Hazardous decomposition products: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects:

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Silane</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>4 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1.57 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>dicyttil dilaurate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>6450 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>dibutylbis(pentane-2, 4-</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>&gt;2 g/kg</td>
<td>-</td>
</tr>
<tr>
<td>dionatio-O,O')tin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acute toxicity: Conclusion/Summary: Not available.
Irritation/Corrosion: Conclusion/Summary: Not available.
Sensitiser: Conclusion/Summary: Not available.
Mutagenicity: Conclusion/Summary: Not available.
Carcinogenicity: Conclusion/Summary: Not available.
Reproductive toxicity: Conclusion/Summary: Not available.
Teratogenicity: Conclusion/Summary: Not available.

Information on the likely routes of exposure: Not available.

Potential acute health effects:
Inhalation: May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion: Harmful if swallowed. May cause burns to mouth, throat and stomach.
Skin contact: Corrosive to the skin. Causes burns.
Eye contact: Corrosive to eyes. Causes burns.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: No specific data.
Ingestion: Adverse symptoms may include the following:
  - Stomach pains

Skin Contact: Adverse symptoms may include the following:
  - Pain or irritation
  - Redness
  - Blistering may occur

Eye contact: Adverse symptoms may include the following:
  - Pain
  - Watering
  - Redness

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure:
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Long term exposure:
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Potential chronic health effects: Not available.
Conclusion/Summary: Not available.
General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.
Other information: Not available.

There is no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhoea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

SECTION 12: Ecological information
12.1 Toxicity
Conclusion/Summary: Not available.
12.2 Persistence and degradability
Conclusion/Summary: Not available.
12.3 Bioaccumulative potential: Not available.
12.4 Mobility in soil Soil/water partition coefficient (KOC): Mobility: Not available.
12.5 Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
12.6 Other adverse effects
No known significant effects or critical hazards.

SECTION 13: Disposal considerations
The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).
13.1 Waste treatment methods
Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste product residues should not be disposed of via the sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Hazardous waste: Yes.

European waste catalogue (EWC)

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 01 11*</td>
<td>waste paint and varnish containing organic solvents or other dangerous substances</td>
</tr>
</tbody>
</table>
Packaging

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

<table>
<thead>
<tr>
<th>Type of packaging</th>
<th>European waste catalogue (EWC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>15 01 06 mixed packaging</td>
</tr>
</tbody>
</table>

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>3066</th>
<th>3066</th>
<th>3066</th>
<th>3066</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name</td>
<td>PAINT RELATED MATERIAL</td>
<td>PAINT RELATED MATERIAL</td>
<td>PAINT RELATED MATERIAL</td>
<td>PAINT RELATED MATERIAL</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>II</td>
<td>II</td>
<td>II</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazards</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>14.6 Special precautions for user</td>
<td>Transport within user's premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
<td>Transport within user's premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
<td>Transport within user's premises always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</td>
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</tr>
</tbody>
</table>

Additional information

ADR Viscosity Remarks: Not available.

ADR Tunnel code: (E)

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.
SECTION 15: Regulatory information

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

EU Regulation(EC) No.1907/2006(REACH)
Annex XIV-List of substances subject to authorisation
Substances of very high concern
Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Restricted to professional users.

Other EU regulations

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Carcinogenic effects</th>
<th>Mutagenic effects</th>
<th>Developmental effects</th>
<th>Fertility effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutylbis(pentane-2,4-dionato-O,O’)tin</td>
<td>-</td>
<td>Muta. Cat 3; R68</td>
<td>Repr. Cat 2; R61</td>
<td>Repr. Cat 2; R60</td>
</tr>
</tbody>
</table>

15.2 Chemical Safety Assessment: No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

Full text of abbreviated H statements:

H302  Harmful if swallowed.
H314  Causes severe skin burns and eye damage.
H315  Causes skin irritation.
H317  May cause an allergic skin reaction.
H318  Causes serious eye damage.
H341  Suspected of causing genetic defects.
H360FD May damage fertility. May damaging the unborn child.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H370  Causes damage to organs.
H372  Causes damage to organs through prolonged or repeated exposure if swallowed.
H373  May cause damage to organs through prolonged or repeated exposure if swallowed.
H400  Very toxic to aquatic life.
H410  Very toxic to aquatic life with long lasting effects.
H412  Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]:

Acute Tox. 4, H302  ACUTE TOXICITY: ORAL - Category 4
Aquatic Acute 1, H400  AQUATIC TOXICITY (ACUTE) – Category 1
Aquatic Chronic 1, H410  AQUATIC TOXICITY (CHRONIC) - Category 1
Aquatic Chronic 3, H412  AQUATIC TOXICITY (CHRONIC) - Category 3
Eye Irrit. 2, H318  SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Muta. 2, H341  GERM CELL MUTAGENICITY - Category 2
Repr. 1B H360FD  TOXIC TO REPRODUCTION [Fertility and Unborn child] – Category 1B
Repr. 2, H361fd  TOXIC TO REPRODUCTION [Fertility and Unborn child] – Category 2
Skin Corr. 1B, H314  SKIN CORROSION/IRRITATION – Category 1B
Skin Corr. 1C, H314  SKIN CORROSION/IRRITATION – Category 1C
Skin Irrit. 2, H315  SKIN CORROSION/IRRITATION – Category 2
Skin Sens. 1, H317  SKIN SENSITIZATION - Category 1
STOT RE 1, H372  SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL – Category 1
STOT RE 2, H373  SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL – Category 2
STOT SE 1, H370  SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): – Category 1

Full text of abbreviated R phrases:

R68- Possible risk of irreversible effects.
R60- May impair fertility.
R61- May cause harm to the unborn child.
R48/25- Also toxic: danger of serious damage to health by prolonged exposure if swallowed.
R22- Also harmful if swallowed.
R48/22- Also harmful: danger of serious damage to health by prolonged exposure if swallowed.
R34- Causes burns.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R2/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53- May cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD]:

Muta. Cat 3 – Mutagen category 3
Repr. Cat 2 – Toxic to reproduction category 2
T – Toxic
C - Corrosive
Xn - Harmful
N - Dangerous for the environment

History:

Date of revision: 11 April 2013
Date of previous issue: 4 December 2012
Prepared by: RJ
Version: 2.01

Disclaimer: 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. If data is more than 12 months old then data should only be used after checking with Urban Hygiene office.

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.