ELECTROLUBE
THE SOLUTIONS PEOPLE

# SAFETY DATA SHEET
# Polyurethane Resin UR5635, Part A

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

## 1. Identification

### Product identifier

**Product name** Polyurethane Resin UR5635, Part A

**Product number** UR5635A, EUR5635RP250G, EUR5635K5K, EUR5635K25K, ZE

### Recommended use of the chemical and restrictions on use

**Application** Resin.

**Uses advised against** No specific uses advised against are identified.

### Details of the supplier of the safety data sheet

**Supplier**

ELECTROLUBE. A division of HK WENTWORTH LTD
HK WENTWORTH-AMERICA
PO Box 126257
Benbrook, Texas 76126
USA
info@hkw.us.com
+1 888-501-9203

### Emergency telephone number

**Emergency telephone** +1 202 464 2554 (USA only)
+44 1235 239670

## 2. Hazard(s) identification

### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Skin Sens. 1 - H317

**Environmental hazards** Aquatic Acute 3 - H402 Aquatic Chronic 3 - H412

### Label elements

**Pictogram**

**Signal word** Warning

**Hazard statements** H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

# Polyurethane Resin UR5635, Part A

**Precautionary statements**

P261 Avoid breathing vapor/ spray.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 If on skin: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

**Contains**

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

## Other hazards

This product does not contain any substances classified as PBT or vPvB.

## 3. Composition/information on ingredients

### Mixtures

**Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate** **<1%**

CAS number: —

M factor (Acute) = 1 M factor (Chronic) = 1

**Classification**
Skin Sens. 1A - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

**1-Methoxy-2-propanol** **<1%**

CAS number: 107-98-2

**Classification**
Flam. Liq. 3 - H226
STOT SE 3 - H336

**Styrene** **<1%**

CAS number: 100-42-5

**Classification**
Flam. Liq. 3 - H226
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319
Repr. 2 - H361d
STOT RE 1 - H372

# Polyurethane Resin UR5635, Part A

| **ethyl formate** | **<1%** |
|---|---|
| CAS number: 109-94-4 | |
| **Classification**<br>Flam. Liq. 2 - H225<br>Acute Tox. 4 - H302<br>Acute Tox. 4 - H332<br>Eye Irrit. 2A - H319<br>STOT SE 3 - H335 | |

| **Ethanol** | **<1%** |
|---|---|
| CAS number: 64-17-5 | |
| **Classification**<br>Flam. Liq. 2 - H225 | |

The full text for all hazard statements is displayed in Section 16.

## 4. First-aid measures

### Description of first aid measures

**General information** Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

**Inhalation** Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.

**Ingestion** Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

**Skin Contact** It is important to remove the substance from the skin immediately. In the event of any sensitization symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognized skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.

**Eye contact** Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.

**Protection of first aiders** First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

### Most important symptoms and effects, both acute and delayed

**General information** See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **Inhalation** | Prolonged inhalation of high concentrations may damage respiratory system. |
| **Ingestion** | May cause sensitization or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. |
| **Skin contact** | May cause skin sensitization or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin. |
| **Eye contact** | May cause temporary eye irritation. |

### Indication of immediate medical attention and special treatment needed

| | |
|---|---|
| **Notes for the doctor** | Treat symptomatically. May cause sensitization or allergic reactions in sensitive individuals. |

## 5. Fire-fighting measures

### Extinguishing media

| | |
|---|---|
| **Suitable extinguishing media** | The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | Do not use water jet as an extinguisher, as this will spread the fire. |

### Special hazards arising from the substance or mixture

| | |
|---|---|
| **Specific hazards** | Containers can burst violently or explode when heated, due to excessive pressure build-up. |
| **Hazardous combustion products** | Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

### Advice for firefighters

| | |
|---|---|
| **Protective actions during firefighting** | Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities. |
| **Special protective equipment for firefighters** | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents. |

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

| | |
|---|---|
| **Personal precautions** | No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Avoid contact with skin and eyes. |

### Environmental precautions

| | |
|---|---|
| **Environmental precautions** | Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). |

### Methods and material for containment and cleaning up

# Polyurethane Resin UR5635, Part A

**Methods for cleaning up**

Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Reference to other sections**

For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions**

Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene**

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

### Conditions for safe storage, including any incompatibilities

**Storage precautions**

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class**

Miscellaneous hazardous material storage.

### Specific end uses(s)

**Specific end use(s)**

The identified uses for this product are detailed in Section 1.

## 8. Exposure Controls/personal protection

### Control parameters

### Occupational exposure limits

**1-Methoxy-2-propanol**

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 184 mg/m³
Short-term exposure limit (15-minute): ACGIH 100 ppm 369 mg/m³
A4

**Styrene**

# Polyurethane Resin UR5635, Part A

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 85 mg/m³
Short-term exposure limit (15-minute): ACGIH 40 ppm 170 mg/m³
A4
Long-term exposure limit (8-hour TWA): OSHA 100 ppm
Ceiling exposure limit: OSHA 200 ppm

**ethyl formate**

Short-term exposure limit (15-minute): ACGIH 100 ppm 303 mg/m³
A4
Long-term exposure limit (8-hour TWA): OSHA 100 ppm 300 mg/m³

**Ethanol**

Short-term exposure limit (15-minute): ACGIH 1000 ppm 1880 mg/m³
A3
Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.
A4 = Not Classifiable as a Human Carcinogen.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
OSHA = Occupational Safety and Health Administration.

**Styrene (CAS: 100-42-5)**

| | |
|---|---|
| **Immediate danger to life and health** | 700 ppm |

**Ethanol (CAS: 64-17-5)**

| | |
|---|---|
| **Immediate danger to life and health** | 3300 ppm |

**ethyl formate (CAS: 109-94-4)**

| | |
|---|---|
| **Immediate danger to life and health** | 1500 ppm |

## Exposure controls

**Protective equipment**

**Appropriate engineering controls**

Provide adequate ventilation. Personal, workplace environment 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. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.

**Eye/face protection**

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **Hand protection** | Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended. |
| **Other skin and body protection** | Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. |
| **Hygiene measures** | Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product. |
| **Respiratory protection** | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. |
| **Environmental exposure controls** | Keep container tightly sealed when not in use. 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. |

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance** | Liquid. |
| **Color** | Clear. Milky. |
| **Odor** | Characteristic. |
| **pH** | Not available. |
| **Melting point** | Not available. |
| **Initial boiling point and range** | Not available. |
| **Flash point** | Not available. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not available. |
| **Upper/lower flammability or explosive limits** | Not available. |
| **Vapor pressure** | Not available. |
| **Vapor density** | Not available. |
| **Bulk density** | 1.04 kg/l |
| **Solubility(ies)** | Not available. |

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **Partition coefficient** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition Temperature** | Not available. |
| **Viscosity** | 900 mPa s @ 23°C/73.4°F |
| **Explosive properties** | Not considered to be explosive. |
| **Oxidizing properties** | Does not meet the criteria for classification as oxidizing. |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | See the other subsections of this section for further details. |
| **Stability** | Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions. |
| **Possibility of hazardous reactions** | No potentially hazardous reactions known. |
| **Conditions to avoid** | There are no known conditions that are likely to result in a hazardous situation. |
| **Materials to avoid** | No specific material or group of materials is likely to react with the product to produce a hazardous situation. |
| **Hazardous decomposition products** | Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors. |

## 11. Toxicological information

### Information on toxicological effects

**Acute toxicity - oral**

| | |
|---|---|
| **Notes (oral $LD_{50}$)** | Based on available data the classification criteria are not met. |

**Acute toxicity - dermal**

| | |
|---|---|
| **Notes (dermal $LD_{50}$)** | Based on available data the classification criteria are not met. |

**Acute toxicity - inhalation**

| | |
|---|---|
| **Notes (inhalation $LC_{50}$)** | Based on available data the classification criteria are not met. |

**Skin corrosion/irritation**

| | |
|---|---|
| **Animal data** | Based on available data the classification criteria are not met. |

**Serious eye damage/irritation**

| | |
|---|---|
| **Serious eye damage/irritation** | Based on available data the classification criteria are not met. |

**Respiratory sensitization**

| | |
|---|---|
| **Respiratory sensitization** | Based on available data the classification criteria are not met. |

**Skin sensitization**

| | |
|---|---|
| **Skin sensitization** | May cause skin sensitization or allergic reactions in sensitive individuals. |

**Germ cell mutagenicity**

| | |
|---|---|
| **Genotoxicity - in vitro** | Based on available data the classification criteria are not met. |

**Carcinogenicity**

| | |
|---|---|
| **Carcinogenicity** | Based on available data the classification criteria are not met. |

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **IARC carcinogenicity** | Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans. |

**Reproductive toxicity**

| | |
|---|---|
| **Reproductive toxicity - fertility** | Based on available data the classification criteria are not met. |
| **Reproductive toxicity - development** | Based on available data the classification criteria are not met. |

**Specific target organ toxicity - single exposure**

| | |
|---|---|
| **STOT - single exposure** | Not classified as a specific target organ toxicant after a single exposure. |

**Specific target organ toxicity - repeated exposure**

| | |
|---|---|
| **STOT - repeated exposure** | Not classified as a specific target organ toxicant after repeated exposure. |

**Aspiration hazard**

| | |
|---|---|
| **Aspiration hazard** | Based on available data the classification criteria are not met. |

| | |
|---|---|
| **General information** | The severity of the symptoms described will vary dependent on the concentration and the length of exposure. |
| **Inhalation** | Prolonged inhalation of high concentrations may damage respiratory system. |
| **Ingestion** | May cause sensitization or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation. |
| **Skin Contact** | May cause skin sensitization or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin. |
| **Eye contact** | May cause temporary eye irritation. |
| **Route of entry** | Ingestion Inhalation Skin and/or eye contact |
| **Target Organs** | No specific target organs known. |
| **Medical considerations** | Skin disorders and allergies. |

**Triethyl orthoformate**

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 7,060.0 |
| **Species** | Mouse |
| **ATE oral (mg/kg)** | 7,060.0 |

**Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate**

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 3,230.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 3,230.0 |

**Butane-1,4-diol**

# Polyurethane Resin UR5635, Part A

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 1,500.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 1,500.0 |

**diisooctyl 2,2'-[(dioctylstannylene)bis(thio)]diacetate**

**Acute toxicity - oral**

| | |
|---|---|
| **ATE oral (mg/kg)** | 500.0 |

**1-Methoxy-2-propanol**

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 3,739.0 |
| **Species** | Rat |
| **Notes (oral $LD_{50}$)** | $LD_{50}$ 3739 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met. |
| **ATE oral (mg/kg)** | 3,739.0 |

**Acute toxicity - dermal**

| | |
|---|---|
| **Notes (dermal $LD_{50}$)** | $LD_{50}$ >2000 mg/kg, Dermal, Rat REACH dossier information. Based on available data the classification criteria are not met. |

**Skin corrosion/irritation**

| | |
|---|---|
| **Animal data** | Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met. |

**Skin sensitization**

| | |
|---|---|
| **Skin sensitization** | Guinea pig maximization test (GPMT) - Guinea pig: Not sensitizing. REACH dossier information. Based on available data the classification criteria are not met. |

**Germ cell mutagenicity**

| | |
|---|---|
| **Genotoxicity - in vitro** | Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met. |
| **Genotoxicity - in vivo** | Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met. |

**Carcinogenicity**

| | |
|---|---|
| **Carcinogenicity** | NOEL 3000 ppm, Inhalation, Mouse REACH dossier information. Based on available data the classification criteria are not met. |

**Reproductive toxicity**

| | |
|---|---|
| **Reproductive toxicity - fertility** | Two-generation study - NOAEL 1000 ppm, Inhalation, Rat F1 REACH dossier information. Based on available data the classification criteria are not met. |
| **Reproductive toxicity - development** | - NOAEL: 1500 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met. |

**Specific target organ toxicity - single exposure**

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **STOT - single exposure** | STOT SE 3 - H336 May cause drowsiness or dizziness. REACH dossier information. |
| **Target organs** | Central nervous system Brain |

**Specific target organ toxicity - repeated exposure**

| | |
|---|---|
| **STOT - repeated exposure** | NOAEL 919 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met. |

**Styrene**

**Acute toxicity - inhalation**

| | |
|---|---|
| **ATE inhalation (gases ppm)** | 4,500.0 |
| **ATE inhalation (vapours mg/l)** | 11.0 |
| **ATE inhalation (dusts/mists mg/l)** | 1.5 |

**Carcinogenicity**

| | |
|---|---|
| **IARC carcinogenicity** | IARC Group 2B Possibly carcinogenic to humans. |
| **NTP carcinogenicity** | Reasonably anticipated to be a human carcinogen. |

**ethyl formate**

**Acute toxicity - oral**

| | |
|---|---|
| **ATE oral (mg/kg)** | 500.0 |

**Acute toxicity - inhalation**

| | |
|---|---|
| **ATE inhalation (gases ppm)** | 4,500.0 |
| **ATE inhalation (vapours mg/l)** | 11.0 |
| **ATE inhalation (dusts/mists mg/l)** | 1.5 |

**Ethanol**

| | |
|---|---|
| **Toxicological effects** | Not regarded as a health hazard under current legislation. |

**Acute toxicity - oral**

| | |
|---|---|
| **Notes (oral $LD_{50}$)** | $LD_{50}$ 10470 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met. |

**Acute toxicity - inhalation**

| | |
|---|---|
| **Notes (inhalation $LC_{50}$)** | $LD_{50}$ 124.7 mg/l, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met. |

**Skin corrosion/irritation**

| | |
|---|---|
| **Animal data** | Dose: 0.2 mL, 24 hours, Rabbit Primary dermal irritation index: 0 REACH dossier information. Based on available data the classification criteria are not met. |

**Skin sensitization**

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **Skin sensitization** | Local Lymph Node Assay (LLNA) - Mouse: Not sensitizing. REACH dossier information. Based on available data the classification criteria are not met. |

**Germ cell mutagenicity**

| | |
|---|---|
| **Genotoxicity - in vitro** | Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met. |
| **Genotoxicity - in vivo** | Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met. |

**Carcinogenicity**

| | |
|---|---|
| **IARC carcinogenicity** | IARC Group 1 Carcinogenic to humans. |

**Reproductive toxicity**

| | |
|---|---|
| **Reproductive toxicity - fertility** | Two-generation study - NOAEL 15% , Oral, Mouse REACH dossier information. Based on available data the classification criteria are not met. |
| **Reproductive toxicity - development** | Maternal toxicity: - NOAEL: 16000 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met. |

**Specific target organ toxicity - repeated exposure**

| | |
|---|---|
| **STOT - repeated exposure** | LOAEL ~4000 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met. |

## 12. Ecological Information

**Toxicity** Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

**Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate**

**Acute aquatic toxicity**

| | |
|---|---|
| **LE(C)$_{50}$** | 0.1 < L(E)C50 ≤ 1 |
| **M factor (Acute)** | 1 |

**Chronic aquatic toxicity**

| | |
|---|---|
| **M factor (Chronic)** | 1 |

**1-Methoxy-2-propanol**

| | |
|---|---|
| **Acute toxicity - fish** | $LC_{50}$, 96 hours: 20800 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information. |
| **Acute toxicity - aquatic invertebrates** | $LC_{50}$, 48 hours: 21100 mg/l, Daphnia magna REACH dossier information. |
| **Acute toxicity - aquatic plants** | $EC_{50}$, 7 days: >1000 mg/l, Selenastrum capricornutum REACH dossier information. |

**Ethanol**

| | |
|---|---|
| **Toxicity** | Based on available data the classification criteria are not met. |
| **Acute toxicity - fish** | $LC_{50}$, 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow) |

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **Acute toxicity - aquatic invertebrates** | $LC_{50}$, 48 hours: 5012 mg/l, Ceriodaphnia dubia |
| **Acute toxicity - aquatic plants** | $EC_{50}$, 72 hours: 11.5 mg/l, Chlorella vulgaris |
| **Chronic toxicity - aquatic invertebrates** | NOEC, 9 days: 9.6 mg/l, Daphnia magna |

## Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

### 1-Methoxy-2-propanol

| | |
|---|---|
| **Persistence and degradability** | The substance is readily biodegradable. |
| **Phototransformation** | Water - $DT_{50}$ : 3.1 hours<br>REACH dossier information. |
| **Biodegradation** | Water - Degradation 96%: 28 days<br>REACH dossier information. |

### Ethanol

| | |
|---|---|
| **Persistence and degradability** | The substance is readily biodegradable. |
| **Biodegradation** | Water - Degradation 74%: 10 days |
| **Chemical oxygen demand** | 1.99 g $O_2$/g substance |

## Bioaccumulative potential

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Butane-1,4-diol

**Bio-Accumulative Potential** Bioaccumulation is unlikely.

### 1-Methoxy-2-propanol

| | |
|---|---|
| **Bio-Accumulative Potential** | No data available on bioaccumulation. |
| **Partition coefficient** | log Pow: <1 REACH dossier information. |

### Ethanol

| | |
|---|---|
| **Bio-Accumulative Potential** | Bioaccumulation is unlikely. |
| **Partition coefficient** | log Pow: -0.35 |

## Mobility in soil

**Mobility** No data available.

### 1-Methoxy-2-propanol

# Polyurethane Resin UR5635, Part A

| | |
|---|---|
| **Mobility** | Mobile. |
| **Surface tension** | 70.7 mN/m @ 20°C |

**Ethanol**

| | |
|---|---|
| **Mobility** | The product is soluble in water. |
| **Surface tension** | 24.5 mN/m @ 20°C/68°F |

### Other adverse effects

**Other adverse effects** None known.

## 13. Disposal considerations

### Waste treatment methods

**General information** The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

## 14. Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

### UN Number

Not applicable.

### UN proper shipping name

Not applicable.

### Transport hazard class(es)

No transport warning sign required.

**Transport labels**
No transport warning sign required.

**DOT transport labels**
No transport warning sign required.

### Packing group

Not applicable.

### Environmental hazards

**Environmentally Hazardous Substance**
No.

# Polyurethane Resin UR5635, Part A

### Special precautions for user

Not applicable.

**DOT TIH Zone** Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

### US Federal Regulations

**SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**
None of the ingredients are listed or exempt.

**CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**
None of the ingredients are listed or exempt.

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**
None of the ingredients are listed or exempt.

**SARA 313 Emission Reporting**
None of the ingredients are listed or exempt.

**CAA Accidental Release Prevention**
None of the ingredients are listed or exempt.

**FDA - Essential Chemical**
None of the ingredients are listed or exempt.

**FDA - Precursor Chemical**
None of the ingredients are listed or exempt.

**SARA (311/312) Hazard Categories**
None of the ingredients are listed or exempt.

**OSHA Highly Hazardous Chemicals**
None of the ingredients are listed or exempt.

### US State Regulations

**California Proposition 65 Carcinogens and Reproductive Toxins**
None of the ingredients are listed or exempt.

**California Air Toxics "Hot Spots" (A-I)**
The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

**California Air Toxics "Hot Spots" (A-II)**
None of the ingredients are listed or exempt.

**California Directors List of Hazardous Substances**
The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

*ethyl formate*

*Ethanol*

# Polyurethane Resin UR5635, Part A

### Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

*ethyl formate*

*Ethanol*

*Triethyl orthoformate*

### Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

*ethyl formate*

*Ethanol*

### Minnesota "Right To Know" List

The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

*ethyl formate*

*Ethanol*

### New Jersey "Right To Know" List

The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

*ethyl formate*

*Ethanol*

*Triethyl orthoformate*

### Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

*1-Methoxy-2-propanol*

*ethyl formate*

*Ethanol*

*Triethyl orthoformate*

## Inventories

### US - TSCA

The following ingredients are listed or exempt:

*ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol*

*Thiodiethylene bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate]*

*[(dodecyloxy)methyl]oxirane*

*1-Methoxy-2-propanol*

*isooctyl mercaptoacetate*

*diisooctyl 2,2'-[(dioctylstannylene)bis(thio)]diacetate*

*ethyl formate*

*Ethanol*

*Triethyl orthoformate*

# Polyurethane Resin UR5635, Part A

*Hexan-6-olide*

*Butane-1,4-diol*

*2-Oxepanone, polymer with 1,4-butanediol*

**US - TSCA 12(b) Export Notification**
None of the ingredients are listed or exempt.

## 16. Other information

| | |
|---|---|
| **Classification abbreviations and acronyms** | Skin Sens. = Skin sensitisation<br>Aquatic Chronic = Hazardous to the aquatic environment (chronic) |
| **Training advice** | Read and follow manufacturer's recommendations. Only trained personnel should use this material. |
| **Issued by** | Bethan Massey |
| **Revision date** | 2/28/2017 |
| **Revision** | 0 |
| **SDS No.** | 1151 |
| **Hazard statements in full** | H225 Highly flammable liquid and vapor.<br>H226 Flammable liquid and vapor.<br>H302 Harmful if swallowed.<br>H315 Causes skin irritation.<br>H317 May cause an allergic skin reaction.<br>H319 Causes serious eye irritation.<br>H332 Harmful if inhaled.<br>H335 May cause respiratory irritation.<br>H336 May cause drowsiness or dizziness.<br>H361d Suspected of damaging the unborn child.<br>H372 Causes damage to organs (Hearing organs) through prolonged or repeated exposure.<br>H400 Very toxic to aquatic life.<br>H402 Harmful to aquatic life.<br>H410 Very toxic to aquatic life with long lasting effects.<br>H412 Harmful to aquatic life with long lasting effects. |