

## Section 1. Identification

SYNTHEPOL P118FR-PH

: GHS product identifier

Standard ORTHO Polyester Resin

: Chemical name

Trade name - SYNTHEPOL P118FR-PH

: Other means of identification

Liquid.

: Product type

### Relevant identified uses of the substance or mixture and uses advised

#### against Identified uses

Resins.

: Supplier's details

HS COMPOSITES Ltd.  
63 HUNUA ROAD  
AUCKLAND  
Tel: +64 (09) 295 2200  
sales@hscomposites.co.nz

: e-mail address of person responsible for this SDS

0800 764 766 Poison Information Centre (24h)

: Emergency telephone number (with hours of operation)

## Section 2. Hazards identification

FLAMMABLE LIQUIDS - Category 3

: Classification of the substance or mixture

ACUTE TOXICITY (oral) - Category 5

SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A

RESPIRATORY SENSITISATION - Category 1

SKIN SENSITISATION - Category 1

CARCINOGENICITY - Category 2

REPRODUCTIVE TOXICITY (Fertility) - Category 1B

REPRODUCTIVE TOXICITY (Unborn child) - Category 2

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (hearing organs) - Category 1

SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3

LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

### GHS label elements

: Hazard pictograms



Danger

: Signal word

H226 - Flammable liquid and vapour.

: Hazard statements

H303 - May be harmful if swallowed.

H319 - Causes serious eye irritation.

H315 - Causes skin irritation.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 - May cause an allergic skin reaction.

H360 - May damage fertility.

## Section 2. Hazards identification

H361 - Suspected of damaging the unborn child.  
 H351 - Suspected of causing cancer.  
 H335 - May cause respiratory irritation.  
 H372 - Causes damage to organs through prolonged or repeated exposure.  
 (hearing organs)  
 H412 - Harmful to aquatic life with long lasting effects.

### Precautionary statements

P201 - Obtain special instructions before use. **: Prevention**  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P280 - Wear protective gloves. Wear protective clothing. Wear eye/face protection.  
 P284 - Wear respiratory protection.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P273 - Avoid release to the environment.  
 P260 - Do not breathe vapour.  
 P270 - Do not eat, drink or smoke when using this product.  
 P264 - Wash hands thoroughly after handling.  
 P272 - Contaminated work clothing should not be allowed out of the workplace.  
 P314 - Get medical attention if you feel unwell. **: Response**  
 P308 + P313 - IF exposed or concerned: Get medical attention.  
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or physician.  
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
 P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.  
 P333 + P313 - If skin irritation or rash occurs: Get medical attention.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 - If eye irritation persists: Get medical attention.  
 P405 - Store locked up. **: Storage**  
 P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations. **: Disposal**

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

## Section 3. Composition/information on ingredients

Mixture **: Substance/mixture**  
 Standard ORTHO Polyester Resin **: Chemical name**  
 Trade name - SYNTHEPOL P118FR-PH **: Other means of identification**

### CAS number/other identifiers

Not applicable. **: CAS number**  
 Mixture. **: EC number**  
 C3009500 **: Product code**

## Section 3. Composition/information on ingredients

CAS number	%	Ingredient name
1645-51-2	31.377	aluminium hydroxide
100-42-5	21.442	styrene
115-27-5	17.6	1,4,5,6,7,7-hexachlorobicyclo [2,2,1]hept-5-ene-2,3-dicarboxylic anhydride
1309-64-4	>3.4941	antimony trioxide
115-96-8	2.5491	tris(2-chloroethyl) phosphate
80-62-6	0.8364	methyl methacrylate
115-28-6	<0.7314	1,4,5,6,7,7-hexachloro-8,9,10-trinorborn-5-ene-2,3-dicarboxylic acid
136-52-7	0.2748	cobalt bis(2-ethylhexanoate)
108-31-6	<0.1836	maleic anhydride

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.

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

## Section 4. First aid measures

### Description of necessary first aid measures

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. : **Eye contact**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure. : **Inhalation**

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. : **Skin contact**

Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. : **Ingestion**

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

#### Potential acute health effects

Causes serious eye irritation. : **Eye contact**

May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. : **Inhalation**

Causes skin irritation. May cause an allergic skin reaction. : **Skin contact**

May be harmful if swallowed. : **Ingestion**

#### Over-exposure signs/symptoms

Adverse symptoms may include the following: : **Eye contact**

pain or irritation  
watering  
redness

## Section 4. First aid measures

Adverse symptoms may include the following:

respiratory tract irritation

coughing

wheezing and breathing difficulties

asthma

reduced foetal weight

increase in foetal deaths

skeletal malformations

: **Inhalation**

Adverse symptoms may include the following:

irritation

redness

reduced foetal weight

increase in foetal deaths

skeletal malformations

: **Skin contact**

Adverse symptoms may include the following:

reduced foetal weight

increase in foetal deaths

skeletal malformations

: **Ingestion**

### Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

: **Notes to physician**

No specific treatment.

: **Specific treatments**

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.

: **Protection of first-aiders**

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

: **Suitable extinguishing media**

Do not use water jet.

: **Unsuitable extinguishing media**

Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

: **Specific hazards arising from the chemical**

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

phosphorus oxides

halogenated compounds

metal oxide/oxides

: **Hazardous thermal decomposition products**

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

: **Special protective actions for fire-fighters**

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

: **Special protective equipment for fire-fighters**

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

: For non-emergency personnel

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 the information in "For non-emergency personnel".

: For emergency responders

Avoid dispersal of spilled 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. May be harmful to the environment if released in large quantities.

: Environmental precautions

### Methods and material for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

: Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

: Large spill

## Section 7. Handling and storage

### Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

: Protective measures

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.

: Advice on general occupational hygiene

## Section 7. Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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.

: **Conditions for safe storage, including any incompatibilities**

## Section 8. Exposure controls/personal protection

### Control parameters

### Occupational exposure limits

Exposure limits	Ingredient name
<b>ACGIH TLV (United States, 3/2016).</b> TWA: 1 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction	aluminium hydroxide
<b>ACGIH TLV (United States, 3/2016).</b> TWA: 20 ppm 8 hours. TWA: 85 mg/m <sup>3</sup> 8 hours. STEL: 40 ppm 15 minutes. STEL: 170 mg/m <sup>3</sup> 15 minutes.	styrene
<b>ACGIH TLV (United States, 3/2016).</b> TWA: 0.5 mg/m <sup>3</sup> , (as Sb) 8 hours.	antimony trioxide
<b>ACGIH TLV (United States, 3/2016). Skin sensitiser.</b> TWA: 50 ppm 8 hours. STEL: 100 ppm 15 minutes.	methyl methacrylate
<b>ACGIH TLV (United States, 3/2016).</b> TWA: 0.02 mg/m <sup>3</sup> , (as Co) 8 hours.	cobalt bis(2-ethylhexanoate)
<b>ACGIH TLV (United States, 3/2016). Skin sensitiser. Inhalation sensitiser.</b> TWA: 0.01 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction and vapor	maleic anhydride

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

: **Appropriate engineering 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.

: **Environmental exposure controls**

### Individual protection 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.

: **Hygiene measures**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

: **Eye/face protection**

### Skin protection



## Section 8. Exposure controls/personal 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.

: Hand 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

: Body 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.

: Other skin protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

: Respiratory protection

## Section 9. Physical and chemical properties

### Appearance

Liquid.

: Physical state

Pale White.

: Colour

Solvent

: Odour

Not available.

: Odour threshold

Not available.

: pH

Not available.

: Melting point

Not available.

: Boiling point

Closed cup: 32°C (89.6°F)

: Flash point

Not applicable.

: Burning time

Not applicable.

: Burning rate

Not available.

: Evaporation rate

Not available.

: Flammability (solid, gas)

Not available.

: Lower and upper explosive (flammable) limits

Not available.

: Vapour pressure

Not available.

: Vapour density

1.1 to 1.2

: Relative density

Not available.

: Solubility

Not available.

: Solubility in water

Not available.

: Partition coefficient: n-octanol/water

Not available.

: Auto-ignition temperature

Not available.

: Decomposition temperature

Not available.

: SADT

Kinematic (40°C (104°F)): >0.4 cm<sup>2</sup>/s (>40 cSt)

: Viscosity

## Section 10. Stability and reactivity

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

The product is stable. : **Chemical stability**

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

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. : **Conditions to avoid**

Reactive or incompatible with the following materials:  
oxidizing materials : **Incompatible materials**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. : **Hazardous decomposition products**

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Exposure	Dose	Species	Result	Product/ingredient name
4 hours	7.6 mg/l	Rat	LC50 Inhalation Dusts and mists	aluminium hydroxide
-	>2000 mg/kg	Rat	LD50 Oral	
4 hours	2770 ppm	Rat	LC50 Inhalation Gas.	styrene
4 hours	11800 mg/m <sup>3</sup>	Rat	LC50 Inhalation Vapour	
-	>2000 mg/kg	Rat	LD50 Dermal	
-	2650 mg/kg	Rat	LD50 Oral	
1 hours	>203 mg/l	Rat	LC50 Inhalation Vapour	1,4,5,6,7, 7-hexachlorobicyclo [2,2,1] hept-5-ene-2,3-dicarboxylic anhydride
-	>10000 mg/kg	Rabbit	LD50 Dermal	
-	2300 mg/kg	Rat	LD50 Oral	
4 hours	>5200 mg/m <sup>3</sup>	Rat	LC50 Inhalation Dusts and mists	antimony trioxide
-	>8300 mg/kg	Rabbit	LD50 Dermal	
-	>20000 mg/kg	Rat	LD50 Oral	
4 hours	>5 mg/l	Rat	LC50 Inhalation Dusts and mists	tris(2-chloroethyl) phosphate
-	>5000 mg/kg	Rabbit	LD50 Dermal	
-	1150 mg/kg	Rat	LD50 Oral	
4 hours	78000 mg/m <sup>3</sup>	Rat	LC50 Inhalation Vapour	methyl methacrylate
-	>5 g/kg	Rabbit	LD50 Dermal	
-	7872 mg/kg	Rat	LD50 Oral	
-	>5 g/kg	Rabbit	LD50 Dermal	cobalt bis(2-ethylhexanoate)
-	>2000 mg/kg	Rat	LD50 Oral	
-	2620 mg/kg	Rabbit	LD50 Dermal	maleic anhydride
-	400 mg/kg	Rat	LD50 Oral	

#### Irritation/Corrosion

Observation	Exposure	Score	Species	Result	Product/ingredient name
-	50 parts per million	-	Human	Eyes - Mild irritant	styrene
-	24 hours 100 milligrams	-	Rabbit	Eyes - Moderate irritant	
-	100 milligrams	-	Rabbit	Eyes - Severe irritant	
-	500 milligrams	-	Rabbit	Skin - Mild irritant	
-	100 Percent	-	Rabbit	Skin - Moderate irritant	
-	100	-	Rabbit	Eyes - Severe irritant	1,4,5,6,7,



## Section 11. Toxicological information

-	milligrams	-				
-	-	-	Rabbit	Skin - Mild irritant		7-hexachlorobicyclo [2,2,1] hept-5-ene-2,3-dicarboxylic anhydride
-	24 hours 250 Micrograms	-	Rabbit	Eyes - Severe irritant		tris(2-chloroethyl) phosphate
-	24 hours 500 milligrams	-	Rabbit	Skin - Mild irritant		1,4,5,6,7,7-hexachloro-8,9,10-trinorborn-5-ene-2,3-dicarboxylic acid

### Sensitisation

Not available.

### Mutagenicity

Result	Experiment	Test	Product/ingredient name
Negative	Experiment: In vitro Subject: Mammalian-Animal	-	aluminium hydroxide

### Carcinogenicity

Not available.

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Target organs	Route of exposure	Category	Name
Respiratory tract irritation	Not applicable.	Category 3	1,4,5,6,7,7-hexachlorobicyclo [2,2,1]hept-5-ene-2,3-dicarboxylic anhydride
Respiratory tract irritation	Not applicable.	Category 3	methyl methacrylate

### Specific target organ toxicity (repeated exposure)

Target organs	Route of exposure	Category	Name
hearing organs	Not determined	Category 1	styrene
Not determined	Not determined	Category 2	1,4,5,6,7,7-hexachlorobicyclo [2,2,1]hept-5-ene-2,3-dicarboxylic anhydride

### Aspiration hazard

Not available.

Not available.

: Information on likely routes of exposure

### Potential acute health effects

Causes serious eye irritation.

: Eye contact

May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

: Inhalation

Causes skin irritation. May cause an allergic skin reaction.

: Skin contact

May be harmful if swallowed.

: Ingestion

### Symptoms related to the physical, chemical and toxicological characteristics

Adverse symptoms may include the following:

: Eye contact

pain or irritation

watering

redness

## Section 11. Toxicological information

Adverse symptoms may include the following:

respiratory tract irritation  
coughing  
wheezing and breathing difficulties  
asthma

reduced foetal weight  
increase in foetal deaths  
skeletal malformations

: Inhalation

Adverse symptoms may include the following:

irritation  
redness  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

: Skin contact

Adverse symptoms may include the following:

reduced foetal weight  
increase in foetal deaths  
skeletal malformations

: Ingestion

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

#### exposure Short term exposure

Not available.

: Potential immediate effects

Not available.

: Potential delayed effects

#### Long term exposure

Not available.

: Potential immediate effects

Not available.

: Potential delayed effects

#### Potential chronic health effects

Exposure	Dose	Species	Result	Product/ingredient name
- 8 hours	615 mg/kg 20 ppm	Rat Rat	Chronic NOAEL Dermal Chronic NOAEL Inhalation Gas.	styrene
-	1242 mg/kg	Rat	Chronic NOAEL Oral	1,4,5,6,7, 7-hexachlorobicyclo [2,2,1] hept-5-ene-2,3-dicarboxylic anhydride
- 14 days	2500 mg/kg 9970 mg/m <sup>3</sup>	Rabbit Rat	Chronic NOAEL Dermal Chronic NOAEL Inhalation Dusts and mists	

Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

: General

Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

: Carcinogenicity

No known significant effects or critical hazards.

: Mutagenicity

Suspected of damaging the unborn child.

: Teratogenicity

No known significant effects or critical hazards.

: Developmental effects

May damage fertility.

: Fertility effects

### Numerical measures of toxicity

#### Acute toxicity estimates

ATE value	Route
577.7 mg/kg	Oral

## Section 11. Toxicological information

## Section 12. Ecological information

### Toxicity

Exposure	Species	Result	Product/ingredient name	
96 hours	Fish - Salmo trutta	Acute LC50 >100 mg/l	aluminium hydroxide styrene	
72 hours	Algae - Pseudokirchneriella subcapitata	Acute EC50 1400 µg/l Fresh water		
96 hours	Algae - Pseudokirchneriella subcapitata	Acute EC50 33 mg/l Fresh water	1,4,5,6,7, 7-hexachlorobicyclo [2,2,1] hept-5-ene-2,3-dicarboxylic anhydride	
48 hours	Daphnia - Daphnia magna	Acute EC50 4700 µg/l Fresh water		
48 hours	Crustaceans - Artemia salina	Acute LC50 52 mg/l Marine water		
96 hours	Fish - Pimephales promelas	Acute LC50 4020 µg/l Fresh water		
21 days	Daphnia	Chronic NOEC 1.01 mg/l		
72 hours	Algae	Acute EC50 97.2 mg/l Fresh water		
48 hours	Daphnia	Acute EC50 110.7 mg/l		antimony trioxide
96 hours	Fish	Acute LC50 422.7 mg/l		
72 hours	Algae	Acute NOEC 48.4 mg/l Fresh water		
72 hours	Algae	Acute EC50 >36.6 mg/l		
4 days	Aquatic plants	Acute EC50 >25.5 mg/l		
48 hours	Crustaceans - Cypris subglobosa	Acute EC50 560 mg/l Fresh water		
48 hours	Daphnia - Daphnia magna	Acute EC50 423450 µg/l Fresh water		
96 hours	Fish - Pagrus major	Acute LC50 6.9 mg/l Marine water		
72 hours	Algae	Chronic NOEC 2.11 to 4 mg/l	tris(2-chloroethyl) phosphate	
21 days	Daphnia	Chronic NOEC 1.74 to 3.13 mg/l		
28 days	Fish	Chronic NOEC 1.13 to 2.31 mg/l		
72 hours	Algae	EC50 450 mg/l		
48 hours	Daphnia	EC50 170 mg/l	methyl methacrylate	
96 hours	Fish - Pimephales promelas - Adult	Acute LC50 130000 µg/l Fresh water		
96 hours	Fish - Gambusia affinis - Adult	Acute LC50 230 ppm Fresh water	maleic anhydride	

### Persistence and degradability

Inoculum	Dose	Result	Test	Product/ingredient name
-	-	4 % - 28 days	OECD 301C Ready Biodegradability - Modified MITI Test (I)	tris(2-chloroethyl) phosphate

Biodegradability	Photolysis	Aquatic half-life	Product/ingredient name
Readily	-	-	styrene
Readily	-	-	antimony trioxide
Not readily	-	-	tris(2-chloroethyl) phosphate
Not readily	-	-	cobalt bis(2-ethylhexanoate)

### Bioaccumulative potential

## Section 12. Ecological information

Potential	BCF	LogP <sub>ow</sub>	Product/ingredient name
low	13.49	0.35	styrene 1,4,5,6,7, 7-hexachlorobicyclo [2,2,1] hept-5-ene-2,3-dicarboxylic anhydride
low	-	1.39	
low	1.29	1.7	tris(2-chloroethyl) phosphate methyl methacrylate 1,4,5,6,7,7-hexachloro-8,9, 10-trinorborn-5-ene-2, 3-dicarboxylic acid cobalt bis(2-ethylhexanoate) maleic anhydride
low	-	1.38	
low	2.09	-	
high	15600	-	
low	-	-2.78	

### Mobility in soil

Not available.

: Soil/water partition  
coefficient (K<sub>oc</sub>)

No known significant effects or critical hazards.




: Other adverse effects

## Section 13. Disposal considerations

The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

: Disposal methods

## Section 14. Transport information

IATA	IMDG	UN	
UN1866	UN1866	UN1866	UN number
Resin solution	RESIN SOLUTION	RESIN SOLUTION	UN proper shipping name
3 	3 	3 	Transport hazard class(es)
III	III	III	Packing group
No.	No.	No.	Environmental hazards

## Section 14. Transport information

<u>Quantity limitation</u>	<u>Emergency schedules</u> F-E, _S-E_	<u>Special provisions</u> 223	<u>Additional information</u>
Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities - Passenger Aircraft: 10 L. Packaging instructions: Y344. <u>Special provisions</u> A3	<u>Special provisions</u> 223, 955		

**Transport within user's premises:** always transport in closed containers that are : **Special precautions for user** upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Not available.

: **Transport in bulk according to Annex II of Marpol and the IBC Code**

## Section 15. Regulatory information

No known specific national and/or regional regulations applicable to this product (including its ingredients).

: **Safety, health and environmental regulations specific for the product**

Not determined

: **Listed on inventory.**

## Section 16. Other information

### History

06/09/2018

: **Date of printing**

24/11/2021

: **Date of revision**

31/08/2018

: **Date of previous issue**

1

: **Version**

ATE = Acute Toxicity Estimate

: **Key to abbreviations**

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Not available.

: **References**

**Indicates information that has changed from previously issued version.**

### Notice to reader

**To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.**

**Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.**