

# SAFETY DATA SHEET



MM 5255 BeroBase 500 Series Transparent Red Orange

## Section 1. Identification

**Product name** : MM 5255 BeroBase 500 Series Transparent Red Orange  
**Product type** : Liquid.

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

#### Identified uses

Use in coatings - Basecoat

#### Uses advised against

Not applicable.

### Supplier

**Manufacturer** : Valspar b.v.  
Zuiveringweg 89  
8243 PE Lelystad  
The Netherlands  
tel: +31 (0)320 292200  
fax: +31 (0)320 292201

**Emergency telephone number** : Call: +31 (0)320 292200 (during daytime)

**Supplier's details** : DBNZ Coatings Limited  
176 Ossie James Drive  
Hamilton Airport, 3282  
NEW ZEALAND  
T: +64 7847 0944  
E: info@dbnz.co.nz

**Emergency telephone number (with hours of operation)** : New Zealand Poisons Information Centre: 0800 764766 (24 hrs)  
CALL: +(64)-98010034 (Hours of operation - 24 hours)

**e-mail address of person responsible for this SDS** : msds@de-beer.com

## Section 2. Hazards identification

**HSNO Classification** : FLAMMABLE LIQUIDS - Category 3  
SKIN IRRITATION - Category 2  
SERIOUS EYE DAMAGE - Category 1  
SKIN SENSITISATION - Category 1  
CARCINOGENICITY - Category 2  
REPRODUCTIVE TOXICITY - Category 2  
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2


This material is classified as hazardous according to criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

This material is classified as DANGEROUS GOODS according to criteria in New Zealand Standard 5433:2012 Transport of Dangerous Goods on Land.

### GHS label elements

**Signal word** : Danger

## Section 2. Hazards identification

<b>Hazard statements</b>	: Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.
<b>Precautionary statements</b>	
<b>Prevention</b>	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
<b>Response</b>	: IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>Storage</b>	: Store locked up.
<b>Disposal</b>	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Symbol</b>	: 

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

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	% (w/w)	Identifiers
xylene	≥10 - ≤21	CAS: 1330-20-7 EC: 215-535-7
n-butyl acetate	≥10 - ≤22	CAS: 123-86-4 EC: 204-658-1
ethylbenzene	≤10	CAS: 100-41-4 EC: 202-849-4
butan-1-ol	≤4.9	CAS: 71-36-3 EC: 200-751-6
Reaction mass of 3,6-Bis(3-chlorophenyl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione, 3-(3-Chlorophenyl)-6-(4-chlorophenyl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione and 3,6-Bis(4-chlorophenyl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione	≤5	EC: 465-080-5
2-methoxy-1-methylethyl acetate	≤3	CAS: 108-65-6 EC: 203-603-9
n-butyl methacrylate	<1	CAS: 97-88-1 EC: 202-615-1
methyl methacrylate	<1	CAS: 80-62-6 EC: 201-297-1

## Section 3. Composition/information on ingredients

methacrylic acid, monoester with propane-1,2-diol	≤0.3	CAS: 27813-02-1 EC: 248-666-3
toluene	≤0.3	CAS: 108-88-3 EC: 203-625-9

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

- Inhalation** : Get medical attention immediately. Call a poison center or physician. 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. 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** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. 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. Chemical burns must be treated promptly by a 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.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Eye contact** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

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

#### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye damage.

#### Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

## Section 4. First aid measures

- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Eyes** : Adverse symptoms may include the following:  
pain  
watering  
redness

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

- Specific treatments** : No specific treatment.
- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Protection of first-aiders** : 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.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.

**Specific hazards arising from the chemical** : 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. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

**Hazchem code** : 3Y

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

**Special protective equipment 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.

## Section 6. Accidental release measures

### 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe 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 the information in "For non-emergency personnel".

- 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).

### Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems 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. 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.
- 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.
- Conditions for safe storage, including any incompatibilities** : 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 oxidising 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. See Section 10 for incompatible materials

## Section 7. Handling and storage

before handling or use.

## Section 8. Exposure controls/personal protection

### [Control parameters](#)

#### [Occupational exposure limits](#)

Ingredient name	Exposure limits
xylene	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Workplace exposure standards (WES)</b> <b>(New Zealand, 11/2023) [xylene (o-, m-, p-isomers)]</b> Ototoxicant. WES-TWA 8 hours: 50 ppm. WES-TWA 8 hours: 217 mg/m <sup>3</sup> .
n-butyl acetate	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Workplace exposure standards (WES)</b> <b>(New Zealand, 11/2023)</b> WES-TWA 8 hours: 150 ppm. WES-TWA 8 hours: 713 mg/m <sup>3</sup> . WES-STEL 15 minutes: 950 mg/m <sup>3</sup> . WES-STEL 15 minutes: 200 ppm.
ethylbenzene	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Workplace exposure standards (WES)</b> <b>(New Zealand, 11/2023)</b> Absorbed through skin , Ototoxicant. WES-TWA 8 hours: 20 ppm. WES-TWA 8 hours: 88 mg/m <sup>3</sup> . WES-STEL 15 minutes: 176 mg/m <sup>3</sup> . WES-STEL 15 minutes: 40 ppm.
butan-1-ol	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Workplace exposure standards (WES)</b> <b>(New Zealand, 11/2023)</b> Absorbed through skin. WES-Ceiling: 50 ppm. WES-Ceiling: 150 mg/m <sup>3</sup> .
2-methoxy-1-methylethyl acetate	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> Absorbed through skin. STEL 15 minutes: 548 mg/m <sup>3</sup> . TWA 8 hours: 50 ppm. TWA 8 hours: 274 mg/m <sup>3</sup> . STEL 15 minutes: 100 ppm.
methyl methacrylate	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Workplace exposure standards (WES)</b> <b>(New Zealand, 11/2023)</b> Absorbed through skin , Skin sensitiser. WES-TWA 8 hours: 50 ppm. WES-TWA 8 hours: 208 mg/m <sup>3</sup> . WES-STEL 15 minutes: 100 ppm. WES-STEL 15 minutes: 416 mg/m <sup>3</sup> .
toluene	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Workplace exposure standards (WES)</b> <b>(New Zealand, 11/2023)</b> Absorbed through skin , Ototoxicant. WES-TWA 8 hours: 20 ppm. WES-TWA 8 hours: 75 mg/m <sup>3</sup> . WES-STEL 15 minutes: 377 mg/m <sup>3</sup> . WES-STEL 15 minutes: 100 ppm.

#### [Biological exposure indices](#)



## Section 8. Exposure controls/personal protection

Ingredient name	Exposure indices
xylene	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Biological exposure indices (BEI) (New Zealand, 11/2023) [xylene]</b> BEI: 1.5 g/l, methylhippuric acid [in urine]. Sampling time: end of shift.
ethylbenzene	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Biological exposure indices (BEI) (New Zealand, 11/2023)</b> BEI: 0.25 g/g creatinine, sum of mandelic acid and phenylglyoxylic acids [in urine]. Sampling time: end of shift or end of exposure.
toluene	<b>HSWA 2015 - HSW (GRWM) 2016.</b> <b>Biological exposure indices (BEI) (New Zealand, 11/2023)</b> BEI: 0.3 mg/g creatinine, o-cresol (following hydrolysis) [in urine]. Sampling time: end of shift or end of exposure. BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift or end of exposure.

### Appropriate engineering controls

- : 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.

### 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.

### 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 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: chemical splash goggles and/or 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. > 8 hours (breakthrough time): Recommended EN 374 butyl rubber polyvinyl alcohol (PVA)  $\geq 0.7$  mm  
 < 1 hour (breakthrough time): Conditionally suitable materials for protective gloves; EN 374: Nitrile rubber - NBR ( $\geq 0.35$  mm). Only suitable as splash protection. Only

## Section 8. Exposure controls/personal protection

suitable for brief exposure. In the event of contamination, change protective gloves immediately.

- 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. 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. Recommended: Cotton or cotton/synthetic overalls or coveralls are normally suitable.
- 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** : 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. Recommended: EN 405:2001 + A1:2009 organic vapour (Type A) and particulate filter FFA2P3 R D

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Liquid.
- Colour** : Red. [Transparent]
- Odour** : Hydrocarbon.
- Odour threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not applicable.
- Boiling point or initial boiling point and boiling range** : >100°C (>212°F)
- Flash point** : Closed cup: 24°C (75.2°F)
- Evaporation rate** : 1 (butyl acetate = 1)
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Lower: 0.8%  
Upper: 7.6%
- Vapour pressure** : 1.3 kPa (10 mm Hg)
- Relative vapour density** : 2.55 [Air = 1]
- Relative density** : 0.983
- Density** : 0.983 g/cm<sup>3</sup>
- Solubility(ies)** :

Media	Result
cold water	Not soluble
hot water	Not soluble

- Solubility in water** : Not applicable.
- Miscible with water** : No.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : 415°C (779°F)
- Decomposition temperature** : Not applicable.
- Heat of combustion** : 20.335 kJ/g



## Section 9. Physical and chemical properties and safety characteristics

**Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C (104°F)): >20.5 mm<sup>2</sup>/s (>20.5 cSt)

### Particle characteristics

**Median particle size** : Not applicable.

## Section 10. Stability and reactivity

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

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

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

**Conditions to avoid** : 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. Do not allow vapour to accumulate in low or confined areas.

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

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

## Section 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.  
**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.  
**Eye contact** : Causes serious eye damage.

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

**Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations  
**Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations  
**Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations  
**Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness

## Section 11. Toxicological information

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

Information on toxicological effects

### Acute toxicity

#### Product/ingredient name

xylene

#### Result

**Rabbit - Dermal - LD50**

12126 mg/kg

**Rat - Oral - LD50**

4300 mg/kg

**Rat - Male - Inhalation - LC50 Vapour**

29000 mg/l [4 hours]

**Rat - Inhalation - LC50 Gas.**

5000 ppm [4 hours]

**Rabbit - Dermal - LD50**

>14112 mg/kg

OECD [Acute Dermal Toxicity]

**Rat - Oral - LD50**

10760 mg/kg

OECD [Acute Oral toxicity - Acute Toxic Class Method]

**Rat - Inhalation - LC50 Vapour**

>21.1 mg/l [4 hours]

OECD [Acute Inhalation Toxicity]

**Rat - Inhalation - LC50 Gas.**

390 ppm [4 hours]

Toxic effects: Behavioral - Changes in motor activity (specific assay) Lung, Thorax, or Respiration - Acute pulmonary edema  
Blood - Hemorrhage

ethylbenzene

**Rabbit - Dermal - LD50**

12126 mg/kg

**Rat - Oral - LD50**

3500 mg/kg

Toxic effects: Liver - Other changes Kidney, Ureter, and Bladder - Other changes

**Rat - Inhalation - LC50 Vapour**

6350 ppm [4 hours]

butan-1-ol

**Rat - Oral - LD50**

790 mg/kg

Toxic effects: Liver - Fatty liver degeneration Kidney, Ureter, and Bladder - Other changes Blood - Other changes

**Rabbit - Dermal - LD50**

3400 mg/kg

**Rat - Inhalation - LC50 Vapour**

24000 mg/m<sup>3</sup> [4 hours]

2-methoxy-1-methylethyl acetate

**Rat - Dermal - LD50**

>5000 mg/kg

**Rat - Oral - LD50**

8532 mg/kg

**Rabbit - Dermal - LD50**

>5 g/kg

n-butyl methacrylate

**Rat - Oral - LD50**

16 g/kg

**Rat - Inhalation - LC50 Vapour**

4910 ppm [4 hours]

Toxic effects: Olfaction - Other changes Eye - Other Lung, Thorax, or Respiration - Dyspnea

methyl methacrylate

**Rabbit - Dermal - LD50**

>5 g/kg

Toxic effects: Skin After systemic exposure - Dermatitis, other

**Rat - Oral - LD50**

7872 mg/kg

Toxic effects: Behavioral - Muscle weakness Behavioral -

## Section 11. Toxicological information

methacrylic acid, monoester with propane-1,2-diol

Coma Lung, Thorax, or Respiration - Respiratory depression

**Rat - Male, Female - Inhalation - LC50 Vapour**

29.8 mg/l [4 hours]

**Rat - Oral - LD50**

11200 mg/kg

Toxic effects: Lung, Thorax, or Respiration - Acute pulmonary

edema Lung, Thorax, or Respiration - Dyspnea

Gastrointestinal - Other changes

toluene

**Rabbit - Dermal - LD50**

>5000 mg/kg

**Rat - Oral - LD50**

636 mg/kg

**Rat - Inhalation - LC50 Vapour**

28.1 mg/l [4 hours]

**Conclusion/Summary[Product]** : Not available.

### Skin corrosion/irritation

**Product/ingredient name**

xylene

### **Result**

**Rat - Skin - Mild irritant**

Duration of treatment/exposure: 8 hours

Amount/concentration applied: 60 uL

**Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

**Rabbit - Skin - Moderate irritant**

Amount/concentration applied: 100 %

n-butyl acetate

**Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

ethylbenzene

**Rabbit - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 15 mg

butan-1-ol

**Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

n-butyl methacrylate

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 500 uL

toluene

**Pig - Skin - Mild irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 uL

**Rabbit - Skin - Mild irritant**

Amount/concentration applied: 435 mg

**Rabbit - Skin - Moderate irritant**

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 20 mg

**Rabbit - Skin - Moderate irritant**

Amount/concentration applied: 500 mg

**Conclusion/Summary[Product]** : Not available.

### Serious eye damage/eye irritation

**Product/ingredient name**

### **Result**

## Section 11. Toxicological information

xylene

**Rabbit - Eyes - Mild irritant**Amount/concentration applied: 87 mg**Rabbit - Eyes - Severe irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 5 mg

n-butyl acetate

**Rabbit - Eyes - Moderate irritant**Amount/concentration applied: 100 mg

ethylbenzene

**Rabbit - Eyes - Severe irritant**Amount/concentration applied: 500 mg

butan-1-ol

**Rabbit - Eyes - Severe irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 2 mg**Rabbit - Eyes - Severe irritant**Amount/concentration applied: 0.005 MI**Rabbit - Eyes - Severe irritant**Amount/concentration applied: 1.62 mg

toluene

**Rabbit - Eyes - Mild irritant**Duration of treatment/exposure: 0.5 minutesAmount/concentration applied: 100 mg**Rabbit - Eyes - Mild irritant**Amount/concentration applied: 870 ug**Rabbit - Eyes - Severe irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 2 mg**Rabbit - Eyes - Severe irritant**Amount/concentration applied: 0.1 MI

**Conclusion/Summary[Product]** : Not available.

### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary[Product]** : Not available.

### Respiratory or skin sensitization

Not available.

### **Skin**

**Conclusion/Summary[Product]** : Not available.

### **Respiratory**

**Conclusion/Summary[Product]** : Not available.

### Potential chronic health effects

- |                        |  |
|------------------------|--|
| <b>General</b>         | : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| <b>Inhalation</b>      | : No known significant effects or critical hazards.  |
| <b>Ingestion</b>       | : No known significant effects or critical hazards.  |
| <b>Skin contact</b>    | : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  |
| <b>Eye contact</b>     | : No known significant effects or critical hazards.  |
| <b>Carcinogenicity</b> | : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.   |
| <b>Mutagenicity</b>    | : No known significant effects or critical hazards.  |

## Section 11. Toxicological information

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : Suspected of damaging fertility.

### Chronic toxicity

Not available.

**Conclusion/Summary[Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary[Product]** : Not available.

### Germ cell mutagenicity

Not available.

**Conclusion/Summary[Product]** : Not available.

### Reproductive toxicity

Not available.

**Conclusion/Summary[Product]** : Not available.

### Specific target organ toxicity (single exposure)

#### **Product/ingredient name**

butan-1-ol

#### **Result**

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

### Specific target organ toxicity (repeated exposure)

#### **Product/ingredient name**

xylene

#### **Result**

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

ethylbenzene

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

n-butyl methacrylate

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

methyl methacrylate

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

toluene

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

### Aspiration hazard

Not available.

### Numerical measures of toxicity

#### **Acute toxicity estimates**

## Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
MM 5255 BeroBase 500 Series Transparent Red Orange	2016.6	5075.5	22905.3	212.2	32.7
xylene	500	1100	N/A	29000	N/A
n-butyl acetate	10760	N/A	4500	N/A	N/A
ethylbenzene	3500	12126	N/A	11	N/A
butan-1-ol	790	3400	N/A	24	N/A
Reaction mass of 3,6-Bis(3-chlorophenyl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione, 3-(3-Chlorophenyl)-6-(4-chlorophenyl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione and 3,6-Bis(4-chlorophenyl)-2,5-dihydro-pyrrolo[3,4-c]pyrrole-1,4-dione	N/A	N/A	N/A	N/A	1.5
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
n-butyl methacrylate	16000	N/A	N/A	N/A	N/A
methyl methacrylate	7872	N/A	N/A	11	N/A
methacrylic acid, monoester with propane-1,2-diol	11200	N/A	N/A	N/A	N/A
toluene	636	N/A	N/A	11	N/A

## Section 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic and terrestrial toxicity

#### Product/ingredient name

xylene

#### Result

##### Acute - EC50

Algae

1 to 10 mg/l [72 hours]

##### Acute - LC50 - Marine water

Crustaceans - Daggerblade grass shrimp - *Palaemon pugio*

8500 µg/l [48 hours]

Effect: Mortality

##### Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 days; Size: 18.4 mm; Weight: 0.077 g

13.4 mg/l [96 hours]

Effect: Mortality

##### Acute - NOEC

Algae

200 mg/l [72 hours]

##### Acute - EC50

OECD 201 [Alga, Growth Inhibition Test]

Algae - *Selenastrum capricornutum*

397 mg/l [72 hours]

##### Acute - LC50 - Fresh water

Fish - Fathead minnow - *Pimephales promelas*

Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g

18 mg/l [96 hours]

Effect: Mortality

##### Acute - LC50 - Marine water

Crustaceans - Brine shrimp - *Artemia salina*

32 mg/l [48 hours]

Effect: Mortality

n-butyl acetate

ethylbenzene

##### Acute - LC50 - Fresh water

Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss*

4200 µg/l [96 hours]

Effect: Mortality



## Section 12. Ecological information

butan-1-ol	<b>Acute - EC50 - Fresh water</b>
	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate
	Age: ≤24 hours
	2.93 mg/l [48 hours]
	Effect: Intoxication
	<b>Acute - EC50 - Fresh water</b>
	Algae - Green algae - <i>Raphidocelis subcapitata</i>
	3600 µg/l [96 hours]
	Effect: Population
	<b>Acute - LC50</b>
2-methoxy-1-methylethyl acetate	OECD [Fish, Acute Toxicity Test]
	Fish - <i>Pimephales promelas</i>
	1376 mg/l [96 hours]
	<b>Acute - EC50</b>
	OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test]
	Daphnia - <i>Daphnia magna</i>
	1328 mg/l [48 hours]
	<b>Acute - EC50</b>
	OECD [Alga, Growth Inhibition Test]
	Algae - <i>Desmodesmus subspicatus</i>
n-butyl methacrylate	225 mg/l [96 hours]
	<b>Chronic - NOEC</b>
	OECD [Daphnia Magna Reproduction Test]
	Daphnia - <i>Daphnia magna</i>
	4.1 mg/l [21 days]
	<b>Acute - LC50</b>
	Fish - <i>Oncorhynchus mykiss</i>
	134 mg/l [96 hours]
	<b>Acute - EC50</b>
	Daphnia - <i>Daphnia magna</i>
methyl methacrylate	408 mg/l [48 hours]
	<b>Acute - EC50</b>
	Algae - <i>Pseudokirchnerella subcapitata</i>
	>1000 mg/l [96 hours]
	<b>Chronic - NOEC - Fresh water</b>
	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate
	Age: <24 hours
	2.6 mg/l [21 days]
	Effect: Reproduction
	<b>Acute - EC50 - Fresh water</b>
toluene	Algae - <i>Pseudokirchnerella subcapitata</i>
	>110 mg/l [72 hours]
	<b>Acute - EC50 - Fresh water</b>
	Daphnia - <i>Daphnia magna</i>
	69 mg/l [48 hours]
	<b>Acute - NOEC - Fresh water</b>
	Algae - <i>Pseudokirchnerella subcapitata</i>
	49 mg/l [72 hours]
	<b>Chronic - NOEC - Fresh water</b>
	Daphnia - <i>Daphnia magna</i>
	37 mg/l [21 days]
	<b>Chronic - NOEC - Fresh water</b>
	Fish - <i>Danio rerio</i>
	9.4 mg/l [35 days]
	<b>Acute - LC50 - Fresh water</b>
	Fish - Fathead minnow - <i>Pimephales promelas</i> - Adult
	130 mg/l [96 hours]
	Effect: Mortality
	<b>Acute - LC50</b>
	Fish - <i>Oncorhynchus kisutch</i>

## Section 12. Ecological information

5.5 mg/l [96 hours]

**Acute - EC50**Daphnia - *Daphnia magna*

3.8 mg/l [48 hours]

**Chronic - NOEC - Fresh water**Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

1 mg/l [21 days]

Effect: Mortality

**Acute - EC50 - Fresh water**Algae - Green algae - *Raphidocelis subcapitata*

12.5 mg/l [72 hours]

Effect: Growth

**Conclusion/Summary[Product]** : Not available.

### Persistence and degradability

**Product/ingredient name****Result**

n-butyl acetate

OECD [ Ready Biodegradability - Closed Bottle Test]

&gt;80% [5 days]

butan-1-ol

OECD [ Ready Biodegradability - Modified OECD Screening Test]

&gt;70% [19 days]

2-methoxy-1-methylethyl acetate

OECD [ Ready Biodegradability - Manometric Respirometry Test]

83% [28 days]

OECD [ Inherent Biodegradability: Zahn-Wellens/EMPA Test]

100% [28 days]

**Conclusion/Summary[Product]** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
butan-1-ol	-	-	Readily
2-methoxy-1-methylethyl acetate	-	-	Readily
toluene	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
xylene	3.12	8.1 to 25.9	Low
n-butyl acetate	2.3	-	Low
ethylbenzene	3.6	-	Low
butan-1-ol	1	-	Low
2-methoxy-1-methylethyl acetate	1.2	-	Low
n-butyl methacrylate	2.99	-	Low
methyl methacrylate	1.38	-	Low
methacrylic acid, monoester with propane-1,2-diol	0.97	-	Low
toluene	2.73	90	Low

### Mobility in soil

**Soil/water partition coefficient** : Not available.

### Other adverse effects




## Section 12. Ecological information

No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : 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.

## Section 14. Transport information

	New Zealand	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	Paint
Transport hazard class(es)	3 	3 	3 
Packing group	III	III	III
Environmental hazards	No.	No.	No.

### Additional information

**New Zealand** : **Hazchem code** 3Y  
**Special provisions** 163, 223

**IMDG** : **Emergency schedules** F-E, \_S-E\_  
**Special provisions** 163, 223, 955

**IATA** : **Quantity limitation** 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.  
**Special provisions** A3, A72

**Special precautions for user** : **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.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

<b>HSNO Approval Number</b>	: HSR002669
<b>HSNO Group Standard</b>	: Surface Coatings and Colourants
<b>HSNO Classification</b>	: FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITISATION - Category 1 CARCINOGENICITY - Category 2 REPRODUCTIVE TOXICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: All components are listed or exempted.
<b>Canada</b>	: At least one component is not listed in DSL but all such components are listed in NDSL.
<b>China</b>	: All components are listed or exempted.
<b>Eurasian Economic Union</b>	: <b>Russian Federation inventory</b> : Not determined.
<b>Japan</b>	: <b>Japan inventory (CSCL)</b> : At least one component is not listed. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: All components are listed or exempted.
<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are active or exempted.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### History

<b>Date of printing</b>	: 3/26/2025
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<b>Version</b>	: 1

## Section 16. Other information

### Key to abbreviations

: ADG = Australian Dangerous Goods  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
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  
IMO = International Maritime Organization  
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)  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
SGG = Segregation Group  
UN = United Nations

### References

: Not available.

Indicates information that has changed from previously issued version.

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