# SAFETY DATA SHEET

TB543 Polyurethane Enamel 3.5 VOC Low Gloss

## Section 1. Identification

**Product name** : TB543 Polyurethane Enamel 3.5 VOC Low Gloss

**Product type** : Liquid.

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

**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
6 Killarney Lane
Hamilton 3204
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** : autoinfo@valspar.com

## Section 2. Hazards identification

**HSNO Classification** : FLAMMABLE LIQUIDS - Category 2
EYE IRRITATION - Category 2
SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 1
REPRODUCTIVE TOXICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 3.6%

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

**Hazard statements** : Highly flammable liquid and vapour.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs.
May cause damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.

**Precautionary statements**

# Section 2. Hazards identification

**Prevention** : 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. Avoid release to the environment. Do not breathe vapour or spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response** : IF exposed or concerned: Call a POISON CENTER or doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of 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. If eye irritation persists: Get medical advice or attention.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Symbol** :

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

# Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

| Ingredient name | % (w/w) | CAS number |
|---|---|---|
| n-butyl acetate | 7.5505 | 123-86-4 |
| heptan-2-one | 6.6109 | 110-43-0 |
| butanone | 6.1492 | 78-93-3 |
| 4-chloro-α,α,α-trifluorotoluene | 3.6469 | 98-56-6 |
| 2-butoxyethyl acetate | 3.4363 | 112-07-2 |
| Solvent naphtha (petroleum), light arom. | 1.5589 | 64742-95-6 |
| 2-methoxy-1-methylethyl acetate | 1.4917 | 108-65-6 |
| Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy- | 0.30965 | 104810-48-2 |
| crystalline silica respirable | 0.30749 | 14808-60-7 |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | 0.24683 | 41556-26-7 |
| xylene | 0.23699 | 1330-20-7 |
| Hydroxyphenyl-benzotriazole derivate II | 0.23533 | 104810-47-1 |

**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** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

# Section 4. First aid measures

**Ingestion** : 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. 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.

**Skin contact** : 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. If necessary, call a poison center or physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Eye contact** : 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. If necessary, call a poison center or physician.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

**Inhalation** : May cause damage to organs following a single exposure if inhaled.

**Ingestion** : May cause damage to organs following a single exposure if swallowed.

**Skin contact** : May cause damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.

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

### Over-exposure signs/symptoms

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

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

**Skin** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations

**Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

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

**Specific treatments** : Not available.

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

**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, $CO_2$, water spray (fog) or foam.

**Not suitable** : Do not use water jet.

**Specific hazards arising from the chemical** : Highly 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.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
halogenated compounds
carbonyl halides
metal oxide/oxides

**Hazchem code** : 3YE

**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** : 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). Water polluting material. May be harmful to the environment if released in large quantities.

**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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

**Precautions for safe handling** : 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. 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

# Section 7. Handling and storage

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.

**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 before handling or use.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| n-butyl acetate | **NZ HSWA 2015 (New Zealand, 11/2018).**<br>WES-TWA: 150 ppm 8 hours.<br>WES-TWA: 713 mg/m³ 8 hours.<br>WES-STEL: 950 mg/m³ 15 minutes.<br>WES-STEL: 200 ppm 15 minutes. |
| heptan-2-one | **NZ HSWA 2015 (New Zealand, 11/2018).**<br>WES-TWA: 233 mg/m³ 8 hours.<br>WES-TWA: 50 ppm 8 hours. |
| butanone | **NZ HSWA 2015 (New Zealand, 11/2018).**<br>WES-STEL: 890 mg/m³ 15 minutes.<br>WES-STEL: 300 ppm 15 minutes.<br>WES-TWA: 445 mg/m³ 8 hours.<br>WES-TWA: 150 ppm 8 hours. |
| 2-butoxyethyl acetate | **ACGIH TLV (United States, 3/2019).**<br>**Notes: Refers to Appendix A -- Carcinogens. ACGIH 2003 Adoption**<br>TWA: 20 ppm 8 hours. |
| 2-methoxy-1-methylethyl acetate | **EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin.**<br>STEL: 548 mg/m³ 15 minutes.<br>TWA: 50 ppm 8 hours.<br>TWA: 274 mg/m³ 8 hours.<br>STEL: 100 ppm 15 minutes. |
| crystalline silica respirable | **NZ HSWA 2015 (New Zealand, 12/2011).**<br>WES-TWA: 0.2 ppm 8 hours. Form: Respirable dust |
| xylene | **NZ HSWA 2015 (New Zealand, 11/2018).**<br>**Notes: See Notice of Intended Changes.**<br>WES-TWA: 217 mg/m³, 0 times per shift, 8 hours.<br>WES-TWA: 50 ppm, 0 times per shift, 8 hours. |

**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.

# Section 8. Exposure controls/personal protection

**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.

**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

**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 polyvinyl alcohol (PVA) >= 0.7 mm
< 1 hour (breakthrough time): Conditionally suitable materials for protective gloves; EN 374: Nitrile rubber - NBR (>= 0.35 mm). Only suitable as splash protection. Only suitable for brief exposure. In the event of contamination, change protective gloves immediately.

**Eye 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. Recommended: chemical splash goggles and/or face shield.

**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.

# Section 9. Physical and chemical properties

**Appearance**

**Physical state** : Liquid.

**Colour** : Not available.

**Odour** : Not available.

**Odour threshold** : Not available.

**pH** : Not applicable.

**Melting point** : Not available.

**Boiling point** : >100°C (>212°F)

**Flash point** : Closed cup: 10.5°C (50.9°F)

**Evaporation rate** : Not available.

**Flammability (solid, gas)** : Not available.

**Lower and upper explosive (flammable) limits** : Not available.

**Vapour pressure** : Not available.

**Vapour density** : Not available.

**Relative density** : 1.441

**Solubility** : Insoluble in the following materials: cold water and hot water.

## Section 9. Physical and chemical properties

**Solubility in water** : Not available.

**Partition coefficient: n-octanol/water** : Not applicable.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Not available.

**Flow time (ISO 2431)** : Not available.

**Aerosol product**

**Type of aerosol** : Not applicable.

**Heat of combustion** : Not available.

**Ignition distance** : Not applicable.

**Enclosed space ignition - Time equivalent** : Not applicable.

**Enclosed space ignition - Deflagration density** : Not applicable.

**Flame height** : Not applicable.

**Flame duration** : Not applicable.

## Section 10. Stability and reactivity

**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.

**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** : May cause damage to organs following a single exposure if inhaled.

**Ingestion** : May cause damage to organs following a single exposure if swallowed.

**Skin contact** : May cause damage to organs following a single exposure in contact with skin. May cause an allergic skin reaction.

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

**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:
reduced foetal weight
increase in foetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations

# Section 11. Toxicological information

**Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

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

### Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| n-butyl acetate | LC50 Inhalation Vapour | Rat | >21.1 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >14112 mg/kg | - |
| | LD50 Oral | Rat | 10760 mg/kg | - |
| heptan-2-one | LC50 Inhalation Vapour | Rat | 16.8 mg/l | 4 hours |
| | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | 1600 mg/kg | - |
| butanone | LC50 Inhalation Vapour | Rat | 20 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >2193 mg/kg | - |
| 4-chloro-α,α,α-trifluorotoluene | LD50 Oral | Rat | 13 g/kg | - |
| 2-butoxyethyl acetate | LD50 Dermal | Rabbit | 1500 mg/kg | - |
| | LD50 Oral | Rat | 1880 mg/kg | - |
| Solvent naphtha (petroleum), light arom. | LC50 Inhalation Vapour | Rat | 6193 mg/m³ | 4 hours |
| | LD50 Dermal | Rabbit | >3160 mg/kg | - |
| | LD50 Oral | Rat | 3592 mg/kg | - |
| 2-methoxy-1-methylethyl acetate | LD50 Dermal | Rat | >5000 mg/kg | - |
| | LD50 Oral | Rat - Female | >5000 mg/kg | - |
| Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy- | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | LD50 Oral | Rat | >3230 mg/kg | - |
| xylene | LC50 Inhalation Gas. | Rat | 6350 ppm | 4 hours |
| | LD50 Dermal | Rabbit | 12126 mg/kg | - |
| | LD50 Oral | Rat | 3523 to 4000 mg/kg | - |
| Hydroxyphenyl-benzotriazole derivate II | LD50 Dermal | Rat | >2000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |

### Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| heptan-2-one | Skin - Mild irritant | Rabbit | - | 24 hours 14 milligrams | - |
| butanone | Skin - Mild irritant | Rabbit | - | 24 hours 14 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| 2-butoxyethyl acetate | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| xylene | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 100 Percent | - |
| | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 milligrams | - |

# Section 11. Toxicological information

## Sensitisation

Not available.

## Potential chronic health effects

**General** : 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.

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

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

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

**Eye contact** : No known significant effects or critical hazards.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

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

**Teratogenicity** : Suspected of damaging the unborn child.

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

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

## Chronic toxicity

Not available.

## Carcinogenicity

Not available.

## Mutagenicity

Not available.

## Teratogenicity

Not available.

## Reproductive toxicity

Not available.

## Specific target organ toxicity

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| butanone | Category 2 | inhalation | - |
| 2-butoxyethyl acetate | Category 2 | inhalation | - |
| crystalline silica respirable | Category 1 | inhalation | - |
| xylene | Category 2 | oral, inhalation | - |

## Aspiration hazard

| Name |
|---|
| Solvent naphtha (petroleum), light arom. |

## Numerical measures of toxicity

### Acute toxicity estimates

| Route | ATE value |
|---|---|
| Oral | 16779.53 mg/kg |
| Dermal | 43651.65 mg/kg |
| Inhalation (vapours) | 98.68 mg/l |
| Inhalation (dusts and mists) | 19.87 mg/l |

# Section 12. Ecological information

**Ecotoxicity** : This material is harmful to aquatic life with long lasting effects.

**Aquatic and terrestrial toxicity**

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| n-butyl acetate | Acute EC50 397 mg/l | Algae - Selenastrum capricornutum | 72 hours |
| | Acute EC50 44 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 32 mg/l | Crustaceans - Artemia salina | 48 hours |
| | Acute LC50 18 mg/l | Fish - Pimephales promelas | 96 hours |
| | Acute NOEC 200 mg/l | Algae | 72 hours |
| heptan-2-one | Acute LC50 131000 to 137000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| butanone | Acute EC50 1972 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 308 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 2993 mg/l | Fish - Pimephales promelas | 96 hours |
| 2-butoxyethyl acetate | Acute EC50 1570 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 37 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 22 mg/l | Fish - Pimephales promelas | 96 hours |
| Solvent naphtha (petroleum), light arom. | Acute EC50 2.9 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3.2 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 9.2 mg/l | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute NOEC >1 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours |
| 2-methoxy-1-methylethyl acetate | Acute EC50 >1000 mg/l | Algae - Pseudokirchnerella subcapitata | 96 hours |
| | Acute EC50 408 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 134 mg/l | Fish - Oncorhynchus mykiss | 96 hours |
| Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy- | Acute LC50 2.8 mg/l | Fish | 96 hours |
| bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate | Acute EC50 0.22 mg/l | Algae | 72 hours |
| | Acute LC50 0.9 mg/l | Fish | 96 hours |
| | Acute NOEC 6.3 mg/l | Daphnia | 21 days |
| xylene | Acute EC50 1 to 10 mg/l | Algae | 72 hours |
| | Acute EC50 1 to 10 mg/l | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 1 to 10 mg/l | Fish | 96 hours |
| Hydroxyphenyl-benzotriazole derivate II | Acute LC50 2.8 mg/l | Fish | 96 hours |

**Persistence/degradability**

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|---|---|---|
| n-butyl acetate | OECD 301D Ready Biodegradability - Closed Bottle Test | >80 % - 5 days | - | - |
| heptan-2-one | - | 69 % - Readily - 28 days | - | - |
| Solvent naphtha (petroleum), light arom. | - | 78 % - Readily - 28 days | - | Fresh water |
| 2-methoxy-1-methylethyl acetate | OECD 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test | 100 % - 28 days | - | - |
| | OECD 301F Ready Biodegradability - Manometric | 83 % - 28 days | - | - |

# Section 12. Ecological information

| | | | | |
|---|---|---|---|---|
| | Respirometry Test | | | |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| n-butyl acetate | - | - | Readily |
| heptan-2-one | - | - | Readily |
| 2-butoxyethyl acetate | - | 90.4%; 28 day(s) | - |
| Solvent naphtha (petroleum), light arom. | - | - | Readily |
| 2-methoxy-1-methylethyl acetate | - | - | Readily |

**Bioaccumulative potential**

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| n-butyl acetate | 2.3 | - | low |
| heptan-2-one | 2.26 | - | low |
| butanone | 0.3 | - | low |
| 2-butoxyethyl acetate | 1.51 | - | low |
| Solvent naphtha (petroleum), light arom. | - | 10 to 2500 | high |
| 2-methoxy-1-methylethyl acetate | 1.2 | - | low |
| xylene | 3.12 | 8.1 to 25.9 | low |

**Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Other adverse effects** : 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

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label |
|---|---|---|---|---|---|
| **New Zealand Class** | UN1263 | PAINT | 3 | II |  |
| **ADG Class** | UN1263 | PAINT | 3 | II |  |
| | | | | | |

# Section 14. Transport information

| | | | | | |
|---|---|---|---|---|---|
| **UN Class** | UN1263 | PAINT | 3 | II |  |
| **ADR/RID Class** | UN1263 | PAINT | 3 | II |  |
| **IATA Class** | UN1263 | Paint | 3 | II |  |
| **IMDG Class** | UN1263 | PAINT | 3 | II |  |

**Additional information**

**New Zealand Class** : **Hazchem code** 3YE

**ADG Class** : **Hazchem code** •3YE
**Special provisions** 163

**UN Class** : **Special provisions** 163

**ADR/RID Class** : **Hazard identification number** 33
**Limited quantity** LQ6
**Special provisions** 163 640C 650
**Tunnel code** (D/E)

**IATA Class** : **Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 305. Cargo Aircraft Only: 60 L. Packaging instructions: 307. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y305.
**Special provisions** A3, A72

**IMDG Class** : **Emergency schedules** F-E, _S-E_
**Special provisions** 163

PG* : Packing group

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

# Section 15. Regulatory information

**HSNO Approval Number** : HSR002669

**HSNO Group Standard** : Surface Coatings and Colourants

**HSNO Classification** : FLAMMABLE LIQUIDS - Category 2
EYE IRRITATION - Category 2
SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 1
REPRODUCTIVE TOXICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

**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.

# Section 15. Regulatory information

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

Not listed.

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

Not listed.

**Inventory list**

| | | |
|---|---|---|
| **Australia** | : | All components are listed or exempted. |
| **Canada** | : | All components are listed or exempted. |
| **China** | : | Not determined. |
| **Europe** | : | All components are listed or exempted. |
| **Japan** | : | **Japan inventory (CSCL)**: At least one component is not listed.<br>**Japan inventory (ISHL)**: Not determined. |
| **Malaysia** | : | Not determined |
| **New Zealand** | : | Not determined. |
| **Philippines** | : | At least one component is not listed. |
| **Republic of Korea** | : | All components are listed or exempted. |
| **Taiwan** | : | Not determined. |
| **Thailand** | : | Not determined. |
| **Turkey** | : | Not determined. |
| **United States** | : | Not determined. |
| **Viet Nam** | : | Not determined. |

# Section 16. Other information

**History**

| | | |
|---|---|---|
| **Date of printing** | : | 5/12/2022 |
| **Date of issue/Date of revision** | : | 5/12/2022 |
| **Date of previous issue** | : | 4/14/2022 |
| **Version** | : | 1 |
| **Key to abbreviations** | : | ADG = Australian Dangerous Goods<br>ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road<br>ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail<br>UN = United Nations |
| **References** | : | Not available. |

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

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