

SAFETY DATA SHEET

Serie 500 BeroBase MM 577/588 Base Additive

Section 1. Identification

Product identifier : Serie 500 BeroBase MM 577/588 Base Additive
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's details

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 : Valspar Automotive Australia Pty Limited
4 Hawke Street
Kincumber NSW 2251
AUSTRALIA
T: +612 4368 4054
E: autoinfo@valspar.com
www.de-beer.com

Emergency telephone number : CHEMTREC +(61) 290372994 (Available 24hrs/7 days a week)
Poisons Information Centre: Australia 131 126

Section 2. Hazard(s) identification

Classification of the substance or mixture : Flam. Liq. 3, H226
Skin Irrit. 2, H315
Eye Dam. 1, H318
STOT SE 3, H335
STOT SE 3, H336
STOT RE 2, H373

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Flammable liquid and vapour.
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Section 2. Hazard(s) identification

- Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour or spray.
- Response** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Storage** : Store in a well-ventilated place. Keep container tightly closed. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Not applicable.

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

Section 3. Composition and ingredient information

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	% (w/w)	CAS number
n-butyl acetate	≥30 - ≤60	123-86-4
xylene	≥10 - ≤30	1330-20-7
ethylbenzene	≤10	100-41-4
butan-1-ol	≤3	71-36-3
2-methylpropan-1-ol	≤3	78-83-1
toluene	<1	108-88-3

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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

- 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.
- 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.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact : Causes skin irritation.
Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 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

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

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

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

Specific treatments : No specific treatment.

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 extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : 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

Special protective actions 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.

Hazchem code : •3Y

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. 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

Protective measures : Put on appropriate personal protective equipment (see Section 8). 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 before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
n-butyl acetate	Safe Work Australia (Australia, 4/2018). STEL: 950 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 713 mg/m ³ 8 hours. TWA: 150 ppm 8 hours.
xylene	Safe Work Australia (Australia, 4/2018). STEL: 655 mg/m ³ , 0 times per shift, 15 minutes. STEL: 150 ppm, 0 times per shift, 15 minutes. TWA: 350 mg/m ³ , 0 times per shift, 8 hours. TWA: 80 ppm, 0 times per shift, 8 hours.
ethylbenzene	Safe Work Australia (Australia, 4/2018). STEL: 543 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 434 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
butan-1-ol	Safe Work Australia (Australia, 4/2018). Absorbed through skin. PEAK: 152 mg/m ³ 8 hours. PEAK: 50 ppm 8 hours.
2-methylpropan-1-ol	Safe Work Australia (Australia, 4/2018). TWA: 152 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.

Section 8. Exposure controls and personal protection

toluene

Safe Work Australia (Australia, 4/2018).**Absorbed through skin.**STEL: 574 mg/m³ 15 minutes.

STEL: 150 ppm 15 minutes.

TWA: 191 mg/m³ 8 hours.

TWA: 50 ppm 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.
- 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. 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 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.
- 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	: Transparent
Odour	: Not available.
Odour threshold	: Not available.
pH	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point, initial boiling point, and boiling range	: >100°C (>212°F)
Flash point	: Closed cup: 23 to 23.5°C (73.4 to 74.3°F)
Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Lower: 1.2% Upper: 10.9%
Vapour pressure	:

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
benzene	75.01	10				
methyl methacrylate	27.75	3.7				
toluene	23.17	3.1				
n-butyl acetate	11.25	1.5				
2-methylpropan-1-ol	<12	<1.6				
ethylbenzene	9.3	1.2				
butan-1-ol	<7.5	<1				
xylene	6.7	0.89				
n-butyl methacrylate	1.59	0.21				
Formaldehyde	1	0.13				
propane-1,2-diol	0.15	0.02				
methacrylic acid, monoester with propane-1,2-diol	0.08	0.011				
2-hydroxyethyl methacrylate	0.06	0.008				

Relative vapour density	: 3.7 [Air = 1]
Relative density	: 0.919 to 0.935
Density	: 0.919 to 0.935 g/cm ³
Solubility	: Insoluble in the following materials: cold water and hot water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	:

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
n-butyl methacrylate	290	554	
butan-1-ol	355	671	
propane-1,2-diol	371	699.8	
methyl methacrylate	400	752	
n-butyl acetate	415	779	
2-methylpropan-1-ol	415	779	
Formaldehyde	430	806	
xylene	432	809.6	
ethylbenzene	432.22	810	
toluene	480	896	
benzene	498	928.4	

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

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 toxicological effects

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	-
xylene	LC50 Inhalation Gas.	Rat	6350 ppm	4 hours
	LD50 Dermal	Rabbit	12126 mg/kg	-
	LD50 Oral	Rat	3523 to 4000 mg/kg	-
ethylbenzene	LC50 Inhalation Vapour	Rat	6350 ppm	4 hours
	LD50 Dermal	Rabbit	12126 mg/kg	-

Section 11. Toxicological information

butan-1-ol	LD50 Oral	Rat	3523 to 4000 mg/kg	-
	LC50 Inhalation Vapour	Rat	>17.76 mg/l	4 hours
	LD50 Dermal	Rabbit	3430 mg/kg	-
2-methylpropan-1-ol	LD50 Oral	Rat	2292 mg/kg	-
	LC50 Inhalation Vapour	Rat	8000 mg/l	4 hours
	LD50 Dermal	Rabbit	3392 mg/kg	-
toluene	LD50 Oral	Rat	24600 mg/kg	-
	LC50 Inhalation Vapour	Rat	28.1 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	5580 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
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	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams	-
butan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Eyes - Severe irritant	Rabbit	-	0.005 Milliliters	-
toluene	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
	Eyes - Mild irritant	Rabbit	-	870 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Pig	-	24 hours 250 microliters	-
	Skin - Mild irritant	Rabbit	-	435 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Narcotic effects
	Category 3	-	Respiratory tract irritation
toluene	Category 3	-	Narcotic effects
	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
xylene	Category 2	-	-
toluene	Category 2	-	-

Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations

Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 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

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Serie 500 BeroBase MM 577/588 Base Additive	29088.9	3777.1	21804.4	150.9	N/A
n-butyl acetate	10760	N/A	N/A	N/A	N/A
xylene	N/A	1100	6350	N/A	N/A
ethylbenzene	N/A	12126	N/A	11	N/A
butan-1-ol	500	3430	N/A	N/A	N/A
2-methylpropan-1-ol	24600	3392	N/A	8000	N/A
toluene	5580	N/A	N/A	28.1	N/A

Section 12. Ecological information

Toxicity

Section 12. Ecological information

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute EC50 397 mg/l	Algae - Selenastrum capricornutum	72 hours
xylene	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
	Acute EC50 1 to 10 mg/l	Algae	72 hours
ethylbenzene	Acute EC50 1 to 10 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 1 to 10 mg/l	Fish	96 hours
butan-1-ol	Acute LC50 >10 mg/l	Fish - Pimephales promelas	96 hours
	Acute EC50 225 mg/l	Algae - Desmodesmus subspicatus	96 hours
2-methylpropan-1-ol	Acute EC50 1328 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 1376 mg/l	Fish - Pimephales promelas	96 hours
	Chronic NOEC 4.1 mg/l	Daphnia - Daphnia magna	21 days
	Acute EC50 1799 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1799 mg/l	Aquatic plants - Scenedesmus subspicatus	72 hours
toluene	Acute EC50 1100 mg/l	Daphnia - Daphnia pulex	48 hours
	Acute LC50 1430 mg/l	Fish - Pimephales promelas	96 hours
	Chronic NOEC 117 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC 20 mg/l	Daphnia - Daphnia magna	21 days
	Acute EC50 12.5 mg/l	Algae	72 hours
	Acute EC50 3.8 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 5.5 mg/l	Fish - Oncorhynchus kisutch	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
n-butyl acetate	OECD 301D Ready Biodegradability - Closed Bottle Test	>80 % - 5 days	-	-
butan-1-ol	OECD 301E Ready Biodegradability - Modified OECD Screening Test	>70 % - 19 days	-	-
2-methylpropan-1-ol	-	70 to 80 % - 28 days	-	-

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
n-butyl acetate	2.3	-	low
xylene	3.12	8.1 to 25.9	low
ethylbenzene	3.6	-	low
butan-1-ol	1	-	low
2-methylpropan-1-ol	1	-	low
toluene	2.73	90	low

Section 12. Ecological information

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

	ADG	ADR/RID	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	Paint related material
Transport hazard class(es)	3 	3 	3 	3 
Packing group	III	III	III	III
Environmental hazards	No.	No.	No.	No.

Additional information

ADG : **Hazchem code** •3Y
Special provisions 163, 223, 367

ADR/RID : **Hazard identification number** 30
Limited quantity 5 L
Special provisions 163, 640E, 650, 367
Tunnel code (D/E)

IMDG : **Emergency schedules** F-E, _S-E_
Special provisions 163, 223, 367, 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, A192

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.

Section 14. Transport information

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

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

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (CSCL) : All components are listed or exempted. Japan inventory (ISHL) : Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

Section 16. Any other relevant information

History

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Section 16. Any other relevant 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
 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)
 N/A = Not available
 SGG = Segregation Group
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1	Calculation method
REPRODUCTIVE TOXICITY - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Calculation method

References

: Not applicable.

✔ Indicates information that has changed from previously issued version.

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