SAFETY DATA SHEET

1-16505 Spot Primer Light Grey

Section 1. Identification

Product name : 1-16505 Spot Primer Light Grey

Product type : Aerosol.

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

Identified uses

Use in coatings - Priming materials and coatings

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 : msds@de-beer.com

Section 2. Hazards identification

HSNO Classification : AEROSOLS - Category 1
EYE IRRITATION - Category 2
SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 2
REPRODUCTIVE TOXICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 29.5%

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 : Extremely flammable aerosol. Pressurised container: may burst if heated.
May cause an allergic skin reaction.
Causes serious eye irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs.
May cause damage to organs through prolonged or repeated exposure.

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. Do not spray on an open flame or other ignition source. 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. Do not pierce or burn, even after use.

Response : IF exposed or concerned: Call a POISON CENTER or doctor. Take off contaminated clothing and wash it before reuse. 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. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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
propan-1-ol	24.9	71-23-8
dimethyl ether	16	115-10-6
acetone	11	67-64-1
2-methylpropan-1-ol	8	78-83-1
propane	6.5	74-98-6
Butane	5	106-97-8
butanone	3	78-93-3
Isobutane	2	75-28-5
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	2	25068-38-6
1-methoxy-2-propanol	2	107-98-2
2-methoxy-1-methylethyl acetate	2	108-65-6
butan-1-ol	2	71-36-3
xylene	0.4	1330-20-7
carbon black	0.12	1333-86-4

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.

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:
respiratory tract irritation
coughing
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 : 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. 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 an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. 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. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

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

Hazchem code : 2YE

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).

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. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. 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 breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Empty containers retain product residue and can be hazardous.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away 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. 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
propan-1-ol	**NZ HSWA 2015 (New Zealand, 11/2018). Absorbed through skin.** WES-STEL: 614 mg/m³ 15 minutes. WES-STEL: 250 ppm 15 minutes. WES-TWA: 492 mg/m³ 8 hours. WES-TWA: 200 ppm 8 hours.
dimethyl ether	**NZ HSWA 2015 (New Zealand, 11/2018).** WES-STEL: 958 mg/m³ 15 minutes. WES-STEL: 500 ppm 15 minutes. WES-TWA: 766 mg/m³ 8 hours. WES-TWA: 400 ppm 8 hours.
acetone	**NZ HSWA 2015 (New Zealand, 11/2018).** WES-TWA: 500 ppm 8 hours. WES-TWA: 1185 mg/m³ 8 hours. WES-STEL: 2375 mg/m³ 15 minutes. WES-STEL: 1000 ppm 15 minutes.
2-methylpropan-1-ol	**NZ HSWA 2015 (New Zealand, 11/2018).** WES-TWA: 152 mg/m³ 8 hours. WES-TWA: 50 ppm 8 hours.
propane	**NZ HSWA 2015 (New Zealand, 11/2018). Oxygen Depletion [Asphyxiant].**
Butane	**NZ HSWA 2015 (New Zealand, 2/2013).** WES-TWA: 800 ppm 8 hours. WES-TWA: 1900 mg/m³ 8 hours.
butanone	**NZ HSWA 2015 (New Zealand, 11/2018).** WES-STEL: 890 mg/m³ 15 minutes. WES-STEL: 300 ppm 15 minutes. WES-TWA: 445 mg/m³ 8 hours. WES-TWA: 150 ppm 8 hours.
Isobutane	**ACGIH TLV (United States, 6/2013).** STEL: 1000 ppm 15 minutes.
1-methoxy-2-propanol	**NZ HSWA 2015 (New Zealand, 11/2018).** WES-STEL: 553 mg/m³ 15 minutes. WES-STEL: 150 ppm 15 minutes. WES-TWA: 369 mg/m³ 8 hours. WES-TWA: 100 ppm 8 hours.
2-methoxy-1-methylethyl acetate	**EH40/2005 WELs (United Kingdom (UK), 8/2018). Absorbed through skin.** STEL: 548 mg/m³ 15 minutes. TWA: 50 ppm 8 hours. TWA: 274 mg/m³ 8 hours. STEL: 100 ppm 15 minutes.
butan-1-ol	**NZ HSWA 2015 (New Zealand, 11/2018). Absorbed through skin.** WES-Ceiling: 150 mg/m³ WES-Ceiling: 50 ppm
xylene	**NZ HSWA 2015 (New Zealand, 11/2018). Notes: See Notice of Intended Changes.** WES-TWA: 217 mg/m³, 0 times per shift,

Section 8. Exposure controls/personal protection

	8 hours. WES-TWA: 50 ppm, 0 times per shift, 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, 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.

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 FFA1P2 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 butyl rubber >= 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: safety glasses with side-shields.

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. [Liquefied compressed gas.]

Colour : Grey.

Odour : Not available.

Odour threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : Not available.

Flash point : Closed cup: <-18°C (<-0.4°F)

Section 9. Physical and chemical properties

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1.2%
Upper: 18.6%

Vapour pressure : 520 kPa (3900 mm Hg)

Vapour density : Not available.

Relative density : 0.87

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 : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 26.95 kJ/g

Ignition distance : Not available.

Enclosed space ignition - Time equivalent : Not available.

Enclosed space ignition - Deflagration density : Not available.

Flame height : Not available.

Flame duration : Not available.

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).

Incompatible materials : No specific data.

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:
respiratory tract irritation
coughing
reduced foetal weight
increase in foetal deaths
skeletal malformations

Section 11. Toxicological information

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

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
propan-1-ol	LD50 Dermal	Rabbit	5040 mg/kg	-
	LD50 Oral	Rat	1870 mg/kg	-
dimethyl ether	LC50 Inhalation Gas.	Rat	309 g/m³	4 hours
	LC50 Inhalation Gas.	Rat	164000 ppm	4 hours
acetone	LC50 Inhalation Vapour	Rat	76 mg/l	4 hours
	LD50 Dermal	Rabbit	>15800 mg/kg	-
	LD50 Oral	Rat	5800 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapour	Rat	8000 mg/l	4 hours
	LD50 Dermal	Rabbit	3392 mg/kg	-
	LD50 Oral	Rat	24600 mg/kg	-
Butane	LC50 Inhalation Gas.	Rat	658 g/m³	4 hours
butanone	LC50 Inhalation Vapour	Rat	20 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>2193 mg/kg	-
Isobutane	LC50 Inhalation Vapour	Rat	658000 mg/m³	4 hours
1-methoxy-2-propanol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	4016 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat - Female	>5000 mg/kg	-
butan-1-ol	LC50 Inhalation Vapour	Rat	>17.76 mg/l	4 hours
	LD50 Dermal	Rabbit	3430 mg/kg	-
	LD50 Oral	Rat	2292 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	-
carbon black	LD50 Oral	Rat	>8000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
propan-1-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Human	-	47 hours 100 Percent	-
	Skin - Mild irritant	Human	-	24 hours 100 Percent	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
acetone	Eyes - Mild irritant	Human	-	186300 parts per million	-
	Eyes - Mild irritant	Rabbit	-	10 microliters	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Section 11. Toxicological information

	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	395 milligrams	-
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
butan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Eyes - Severe irritant	Rabbit	-	0.005 Mililiters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 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	-

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 : Suspected of causing 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.

Section 11. Toxicological information

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	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Category 2	dermal	-
xylene	Category 2	oral, inhalation	-

Aspiration hazard

Not available.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3956.57 mg/kg
Dermal	68510 mg/kg
Inhalation (vapours)	384.07 mg/l

Section 12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
propan-1-ol	Acute EC50 4480000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 1000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 2950000 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 3800000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
acetone	Acute EC50 8800 mg/l	Daphnia - Daphnia pulex	48 hours
	Acute LC50 5540 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 430 mg/l	Algae	96 hours
	Chronic NOEC 2212 mg/l	Daphnia - Daphnia pulex	28 days
2-methylpropan-1-ol	Acute EC50 1799 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1799 mg/l	Aquatic plants - Scenedesmus subspicatus	72 hours
	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
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
1-methoxy-2-propanol	Acute EC50 >1000 mg/l	Aquatic plants - Selenastrum capricornutum	96 hours
	Acute EC50 >21000 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 6812 mg/l	Fish - Leuciscus idus	96 hours
2-methoxy-1-methylethyl	Acute EC50 >1000 mg/l	Algae - Pseudokirchnerella	96 hours

Section 12. Ecological information

acetate		subcapitata	
	Acute EC50 408 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 134 mg/l	Fish - Oncorhynchus mykiss	96 hours
butan-1-ol	Acute EC50 225 mg/l	Algae - Desmodesmus subspicatus	96 hours
	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
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
carbon black	Acute EC50 >10000 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 >1000 mg/l	Fish - Brachydanio rerio	96 hours
	Acute NOEC >10000 mg/l	Algae - Scenedesmus subspicatus	72 hours

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-methylpropan-1-ol	-	70 to 80 % - 28 days	-	-
1-methoxy-2-propanol	OECD 301E 301E Ready Biodegradability - Modified OECD Screening Test	96 % - 28 days	-	-
2-methoxy-1-methylethyl acetate	OECD 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test	100 % - 28 days	-	-
	OECD 301F Ready Biodegradability - Manometric Respirometry Test	83 % - 28 days	-	-
butan-1-ol	OECD 301E Ready Biodegradability - Modified OECD Screening Test	>70 % - 19 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-methylpropan-1-ol	-	-	Readily
1-methoxy-2-propanol	-	-	Readily
2-methoxy-1-methylethyl acetate	-	-	Readily
butan-1-ol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
propan-1-ol	0.2	-	low
dimethyl ether	0.07	-	low
acetone	-0.23	-	low
2-methylpropan-1-ol	1	-	low
propane	1.09	-	low
Butane	2.89	-	low
butanone	0.3	-	low
Isobutane	2.8	-	low
reaction product: bisphenol-	2.64 to 3.78	31	low

Section 12. Ecological information

A-(epichlorhydrin); epoxy resin			
1-methoxy-2-propanol	<1	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low
butan-1-ol	1	-	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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
New Zealand Class	UN1950	AEROSOLSAEROSOLS	2.1	-	
ADG Class	UN1950	AEROSOLS	2.1	-	
UN Class	UN1950	AEROSOLS	2.1	-	
ADR/RID Class	UN1950	AEROSOLS	2	-	
IATA Class	UN1950	Aerosols, flammable	2.1	-	
IMDG Class	UN1950	AEROSOLS	2.1	-	

Additional information

New Zealand Class : **Hazchem code** 2YE
Special provisions 63, 190, 277, 327, 344

ADG Class : **Special provisions** 63, 190, 277, 327

UN Class : **Special provisions** 63, 190, 277, 327, 344

Section 14. Transport information

ADR/RID Class : **Limited quantity** 1 L
Special provisions 190, 327, 625, 344
Tunnel code (D)

IATA Class : **Quantity limitation** Passenger and Cargo Aircraft: 75 kg. Packaging instructions: 203. Cargo Aircraft Only: 150 kg. Packaging instructions: 203. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y203.
Special provisions A145, A167, A802

IMDG Class : **Emergency schedules** F-D, S-U
Special provisions 63, 190, 277, 327, 344, 959

PG* : Packing group

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

HSNO Approval Number : HSR002515

HSNO Group Standard : Aerosols

HSNO Classification : AEROSOLS - Category 1
EYE IRRITATION - Category 2
SKIN SENSITISATION - Category 1
CARCINOGENICITY - Category 2
REPRODUCTIVE TOXICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - 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

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.

Malaysia : Not determined

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

United States : Not determined.

Section 15. Regulatory information

Viet Nam : Not determined.

Section 16. Other information

History

Date of printing : 6/4/2022

Date of issue/Date of revision : 6/4/2022

Date of previous issue : 4/12/2022

Version : 1

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)
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.