SAFETY DATA SHEET

8-114 Scratch Resistant Fast Repair Clear

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : 8-114 Scratch Resistant Fast Repair Clear

Product type : Liquid.

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

Identified uses
Professional spray painting, near-industrial setting Use in coatings - Clearcoat

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

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

e-mail address of person responsible for this SDS : msds@valspar.com

National contact

Sherwin-Williams UK Limited
Avenue One Station Lane, Witney, United Kingdom
Oxfordshire OX28 4XR

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : UK: 0-800-014-8126
CALL: +(44)-870-8200418 (Hours of operation - 24 hours)

Supplier

Telephone number : Call: +31 (0)320 292200 (8:30AM - 5PM)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 2, H225
Eye Irrit. 2, H319
Skin Sens. 1, H317
Carc. 2, H351
STOT SE 3, H336
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapour.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Obtain special instructions before use. 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. Avoid breathing vapour.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. 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 in a well-ventilated place. Keep container tightly closed.

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

Hazardous ingredients : acetone; 4-chloro-α,α,α-trifluorotoluene; 4-methylpentan-2-one; Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy-; Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-; bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Supplemental label elements : Repeated exposure may cause skin dryness or cracking.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
acetone	REACH #: 01-2119471330-49 EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	≥10 - ≤25	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	[1] [2]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
4-chloro-α,α,α-trifluorotoluene	REACH #: 01-2119857280-40 EC: 202-681-1 CAS: 98-56-6	≥10 - ≤17	Flam. Liq. 3, H226 Skin Sens. 1B, H317 Aquatic Chronic 2, H411	[1]
heptan-2-one	REACH #: 01-2119902391-49 EC: 203-767-1 CAS: 110-43-0 Index: 606-024-00-3	≥10 - ≤25	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H332	[1] [2]
4-methylpentan-2-one	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≤3	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	[1] [2]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≤3	Flam. Liq. 3, H226 STOT SE 3, H336	[1] [2]
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy-	REACH #: 01-0000015075-76 CAS: 104810-48-2	<1	Skin Sens. 1A, H317 Aquatic Chronic 2, H411	[1]
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	REACH #: 01-0000015075-76 CAS: 104810-47-1	<1	Skin Sens. 1A, H317 Aquatic Chronic 2, H411	[1]
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	REACH #: 01-2119537297-32 EC: 255-437-1 CAS: 41556-26-7	≤0.56	Skin Sens. 1A, H317 Repr. 2, H361 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
dioctyltin dilaurate	REACH #: 01-2119979527-19 EC: 222-883-3 CAS: 3648-18-8 Index: 050-031-00-9	<0.3	Repr. 1B, H360D STOT RE 1, H372 (immune system)	[1] [2]
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC: 280-060-4 CAS: 82919-37-7	≤0.18	Skin Sens. 1A, H317 Repr. 2, H361 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]

SECTION 3: Composition/information on ingredients

			See Section 16 for the full text of the H statements declared above.	

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of first aid measures

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.

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

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

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.

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.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

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

SECTION 4: First aid measures

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

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

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.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : 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. 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. 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 combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides

5.3 Advice for firefighters

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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. Avoid breathing 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".

6.2 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.

6.3 Methods and material for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections

: See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

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

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.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: Handling and storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from 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.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonnes	50000 tonnes

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
acetone	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 3620 mg/m³. STEL 15 minutes: 1500 ppm. TWA 8 hours: 500 ppm. TWA 8 hours: 1210 mg/m³.
n-butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
heptan-2-one	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 475 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 237 mg/m³. TWA 8 hours: 50 ppm.
4-methylpentan-2-one	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 416 mg/m³. STEL 15 minutes: 100 ppm. TWA 8 hours: 208 mg/m³. TWA 8 hours: 50 ppm.
2-methoxy-1-methylethyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 548 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 274 mg/m³. STEL 15 minutes: 100 ppm.
dioctyltin dilaurate	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [tin compounds, organic, except cyhexatin (ISO)]** Absorbed through skin. STEL 15 minutes: 0.2 mg/m³ (as Sn). TWA 8 hours: 0.1 mg/m³ (as Sn).

Biological exposure indices

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure indices
4-methylpentan-2-one	**EH40/2005 BMGVs (United Kingdom (UK), 1/2020)** BGV: 20 µmol/l, 4-methylpentan-2-one [in urine]. Sampling time: post shift.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Result
acetone	**DNEL - General population - Long term - Oral** 62 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 62 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 186 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 200 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 1210 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 2420 mg/m³ Effects: Local
n-butyl acetate	**DNEL - General population - Consumers - Long term - Inhalation** 35.7 mg/m³ Effects: Local **DNEL - General population - Consumers - Short term - Inhalation** 300 mg/m³ Effects: Local **DNEL - General population - Short term - Dermal** 6 mg/kg bw/day Effects: Systemic **DNEL - General population - Consumers - Long term - Oral** 2 mg/kg bw/day Effects: Systemic **DNEL - General population - Consumers - Short term - Oral** 2 mg/kg bw/day Effects: Systemic

SECTION 8: Exposure controls/personal protection

DNEL - Workers - Long term - Inhalation
300 mg/m³
Effects: Systemic

DNEL - Workers - Short term - Inhalation
600 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Inhalation
300 mg/m³
Effects: Local

DNEL - Workers - Short term - Inhalation
600 mg/m³
Effects: Local

DNEL - Workers - Long term - Dermal
11 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Short term - Dermal
11 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Oral
2 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Oral
2 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Dermal
3.4 mg/kg bw/day
Effects: Systemic

DNEL - General population - Short term - Dermal
6 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Dermal
7 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Short term - Dermal
11 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation
12 mg/m³
Effects: Systemic

DNEL - General population - Long term - Inhalation
35.7 mg/m³
Effects: Local

DNEL - Workers - Long term - Inhalation
48 mg/m³
Effects: Systemic

DNEL - General population - Short term - Inhalation
300 mg/m³
Effects: Local

SECTION 8: Exposure controls/personal protection

	DNEL - General population - Short term - Inhalation 300 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 300 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 600 mg/m³ Effects: Systemic
4-chloro-α,α,α-trifluorotoluene	**DNEL - Workers - Long term - Dermal** 0.0176 mg/cm² skin Effects: Local **DNEL - General population - Consumers - Long term - Dermal** 0.0088 mg/cm² skin Effects: Local **DNEL - General population - Long term - Oral** 0.0005 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 0.0005 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.0013 mg/m³ Effects: Systemic **DNEL - General population - Short term - Dermal** 8.8 µg/cm² Effects: Local **DNEL - Workers - Long term - Dermal** 0.017 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 17.6 µg/cm² Effects: Local **DNEL - Workers - Long term - Inhalation** 0.029 mg/m³ Effects: Systemic
heptan-2-one	**DNEL - General population - Long term - Oral** 23.32 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 23.32 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 54.27 mg/kg bw/day Effects: Systemic

SECTION 8: Exposure controls/personal protection

	DNEL - General population - Long term - Inhalation 84.31 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 394.25 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 1516 mg/m³ Effects: Systemic
4-methylpentan-2-one	**DNEL - General population - Long term - Dermal** 4.2 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 11.8 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 14.7 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 14.7 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 83 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 83 mg/m³ Effects: Systemic **DNEL - General population - Short term - Inhalation** 155.2 mg/m³ Effects: Local **DNEL - General population - Short term - Inhalation** 155.2 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 208 mg/m³ Effects: Local **DNEL - Workers - Short term - Inhalation** 208 mg/m³ Effects: Systemic **DNEL - General population - Long term - Oral** 4.2 mg/kg bw/day Effects: Systemic
2-methoxy-1-methylethyl acetate	**DNEL - Workers - Long term - Dermal** 796 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 33 mg/m³ Effects: Local

SECTION 8: Exposure controls/personal protection

DNEL - General population - Long term - Inhalation
33 mg/m³
Effects: Systemic

DNEL - General population - Long term - Oral
36 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation
275 mg/m³
Effects: Systemic

DNEL - General population - Long term - Dermal
320 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Short term - Inhalation
550 mg/m³
Effects: Local

DNEL - Workers - Long term - Dermal
796 mg/kg bw/day
Effects: Systemic

Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy-

DNEL - Workers - Long term - Inhalation
0.35 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Dermal
0.5 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Inhalation
0.085 mg/m³
Effects: Systemic

DNEL - General population - Consumers - Long term - Dermal
0.25 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Oral
0.025 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Oral
0.025 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Dermal
0.025 mg/kg bw/day
Effects: Systemic

DNEL - General population - Long term - Inhalation
0.085 mg/m³
Effects: Systemic

DNEL - Workers - Long term - Dermal
0.25 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Inhalation
0.35 mg/m³

SECTION 8: Exposure controls/personal protection

	Effects: Systemic
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	**DNEL - Workers - Long term - Inhalation** 0.35 mg/m³ Effects: Systemic
	DNEL - Workers - Long term - Dermal 0.5 mg/kg bw/day Effects: Systemic
	DNEL - General population - Consumers - Long term - Inhalation 0.085 mg/m³ Effects: Systemic
	DNEL - General population - Consumers - Long term - Dermal 0.25 mg/kg bw/day Effects: Systemic
	DNEL - General population - Consumers - Long term - Oral 0.025 mg/kg bw/day Effects: Systemic
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	**DNEL - Workers - Long term - Inhalation** 3.53 mg/m³ Effects: Systemic
	DNEL - Workers - Long term - Dermal 2 mg/kg bw/day Effects: Systemic
	DNEL - General population - Consumers - Long term - Inhalation 0.87 mg/m³ Effects: Systemic
	DNEL - General population - Consumers - Long term - Dermal 1 mg/kg bw/day Effects: Systemic
	DNEL - General population - Consumers - Long term - Oral 0.5 mg/kg bw/day Effects: Systemic
dioctyltin dilaurate	**DNEL - General population - Long term - Oral** 0.0005 mg/kg bw/day Effects: Systemic
	DNEL - General population - Long term - Inhalation 0.0009 mg/m³ Effects: Systemic
	DNEL - Workers - Long term - Inhalation 0.0035 mg/m³ Effects: Systemic
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	**DNEL - Workers - Long term - Inhalation** 3.53 mg/m³ Effects: Systemic

SECTION 8: Exposure controls/personal protection

DNEL - Workers - Long term - Dermal
2 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Inhalation
0.87 mg/m³
Effects: Systemic

DNEL - General population - Consumers - Long term - Dermal
1 mg/kg bw/day
Effects: Systemic

DNEL - General population - Consumers - Long term - Oral
0.5 mg/kg bw/day
Effects: Systemic

PNECs

Product/ingredient name	Result
acetone	**Fresh water - Assessment Factors** 10.6 mg/l **Marine - Assessment Factors** 1.06 mg/l **Sewage Treatment Plant - Assessment Factors** 100 mg/l **Fresh water sediment - Equilibrium Partitioning** 30.4 mg/kg dwt **Marine water sediment - Equilibrium Partitioning** 3.04 mg/kg dwt **Soil - Equilibrium Partitioning** 29.5 mg/kg dwt
n-butyl acetate	**Fresh water** 0.18 mg/l **Marine** 0.018 mg/l **Sewage Treatment Plant** 35.6 mg/l **Fresh water sediment** 0.981 mg/kg dwt **Marine water sediment** 0.0981 mg/kg dwt **Soil** 0.0903 mg/kg dwt
4-chloro-α,α,α-trifluorotoluene	**Fresh water - Assessment Factors** 2 µg/l **Marine water - Assessment Factors** 0.2 µg/l **Sewage Treatment Plant - Assessment Factors** 0.032 mg/l

SECTION 8: Exposure controls/personal protection

	Fresh water sediment - Equilibrium Partitioning 0.022 mg/kg dwt **Marine water sediment - Equilibrium Partitioning** 0.0022 mg/kg dwt **Soil - Equilibrium Partitioning** 0.026 mg/kg dwt
heptan-2-one	**Fresh water** 0.0982 mg/l **Marine water** 0.00982 mg/l **Sewage Treatment Plant** 12.5 mg/l **Fresh water sediment** 1.89 mg/kg dwt **Marine water sediment** 0.189 mg/kg dwt **Soil** 0.321 mg/kg dwt
4-methylpentan-2-one	**Fresh water** 0.6 mg/l **Marine** 0.06 mg/l **Sewage Treatment Plant** 27.5 mg/l **Fresh water sediment** 8.27 mg/kg dwt **Marine water sediment** 0.83 mg/kg dwt **Soil** 1.3 mg/kg dwt
2-methoxy-1-methylethyl acetate	**Fresh water** 0.635 mg/l **Marine** 0.0635 mg/l **Sewage Treatment Plant** 100 mg/l **Fresh water sediment** 3.29 mg/kg dwt **Marine water sediment** 0.329 mg/kg dwt **Soil** 0.29 mg/kg dwt
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-	**Fresh water**

SECTION 8: Exposure controls/personal protection

benzotriazol-2-yl)-5-(1,1-dimethylethyl) -4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy-	0.0023 mg/l **Marine water** 0.00023 mg/l **Sewage Treatment Plant** 10 mg/l **Fresh water sediment** 3.06 mg/kg dwt **Marine water sediment** 0.306 mg/kg dwt **Soil** 2 mg/kg dwt
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl) -4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl) -4-hydroxyphenyl]-1-oxopropoxy]-	**Fresh water** 0.0023 mg/l **Marine water** 0.00023 mg/l **Sewage Treatment Plant** 10 mg/l **Fresh water sediment** 3.06 mg/kg dwt **Marine water sediment** 0.306 mg/kg dwt **Soil** 2 mg/kg dwt
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	**Fresh water** 0.0022 mg/l **Marine water** 0.00022 mg/l **Sewage Treatment Plant** 1 mg/l **Fresh water sediment** 1.05 mg/kg dwt **Marine water sediment** 0.11 mg/kg dwt **Soil** 0.21 mg/kg dwt
dioctyltin dilaurate	**Fresh water** 0.002 µg/l **Marine water** 0.0002 µg/l **Sewage Treatment Plant** 100 mg/l

SECTION 8: Exposure controls/personal protection

	Fresh water sediment 0.028 mg/kg dwt **Marine water sediment** 0.0028 mg/kg dwt **Soil** 0.006 mg/kg dwt **Secondary Poisoning** 0.02 mg/kg
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	**Fresh water** 0.0022 mg/l **Marine water** 0.00022 mg/l **Sewage Treatment Plant** 1 mg/l **Fresh water sediment** 1.05 mg/kg dwt **Marine water sediment** 0.11 mg/kg dwt **Soil** 0.21 mg/kg dwt

8.2 Exposure controls

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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

SECTION 8: Exposure controls/personal protection

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. Refer to British Standard BS EN 1149 for further information on material and design requirements and test methods. 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

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.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Aromatic.

Odour threshold : Not available.

Melting point/freezing point : Not applicable.

Initial boiling point and boiling range : >56°C (>132.8°F)

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits : Lower: 1.4%
Upper: 13%

Flash point : Closed cup: -6°C (21.2°F)

Auto-ignition temperature : 393°C (739.4°F)

Decomposition temperature : Not applicable.

pH : Not applicable.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): >20.5 mm^2/s

Solubility(ies) :

Media	Result
cold water	Not soluble
hot water	Not soluble

Solubility in water : Not applicable.

Miscible with water : No.

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

Vapour pressure : 24 kPa (180 mm Hg)

Evaporation rate : 6 (butyl acetate = 1)

Relative density : 0.959

SECTION 9: Physical and chemical properties

Density : 0.959 g/cm³

Vapour density : 10 [Air = 1]

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

Not available.

SECTION 10: Stability and reactivity

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

10.2 Chemical stability : The product is stable.

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

10.4 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.

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

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
acetone	**Rabbit - Dermal - LD50** >15800 mg/kg **Rat - Oral - LD50** 5800 mg/kg Toxic effects: Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Tremor **Rat - Inhalation - LC50 Vapour** 76 mg/l [4 hours]
n-butyl acetate	**Rabbit - Dermal - LD50** >14112 mg/kg OECD [Acute Dermal Toxicity] **Rat - Oral - LD50** 10760 mg/kg OECD [Acute Oral toxicity - Acute Toxic Class Method] **Rat - Inhalation - LC50 Vapour** >21.1 mg/l [4 hours] OECD [Acute Inhalation Toxicity] **Rat - Inhalation - LC50 Gas.**

SECTION 11: Toxicological information

	390 ppm [4 hours] Toxic effects: Behavioral - Changes in motor activity (specific assay) Lung, Thorax, or Respiration - Acute pulmonary edema Blood - Hemorrhage
4-chloro-α,α,α-trifluorotoluene	**Rat - Oral - LD50** 13 g/kg
heptan-2-one	**Rat - Oral - LD50** 1600 mg/kg Toxic effects: Behavioral - Ataxia Lung, Thorax, or Respiration - Respiratory depression **Rat - Dermal - LD50** >2000 mg/kg **Rat - Inhalation - LC50 Vapour** 16.8 mg/l [4 hours]
4-methylpentan-2-one	**Rabbit - Dermal - LD50** >2000 mg/kg **Rat - Oral - LD50** 2080 mg/kg **Rat - Inhalation - LC50 Vapour** 16.4 mg/l [4 hours]
2-methoxy-1-methylethyl acetate	**Rat - Dermal - LD50** >5000 mg/kg **Rat - Oral - LD50** 8532 mg/kg **Rabbit - Dermal - LD50** >5 g/kg
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-hydroxy-	**Rat - Oral - LD50** >5000 mg/kg Acute Oral Toxicity **Rat - Dermal - LD50** >2000 mg/kg Acute Dermal Toxicity
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	**Rat - Oral - LD50** >5000 mg/kg Acute Oral Toxicity **Rat - Dermal - LD50** >2000 mg/kg Acute Dermal Toxicity
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	**Rat - Oral - LD50** >3230 mg/kg
dioctyltin dilaurate	**Rat - Oral - LD50** 6450 mg/kg
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	**Rat - Oral - LD50** >3230 mg/kg

SECTION 11: Toxicological information

Conclusion/Summary [Product] : Not available.

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)
8-114 Scratch Resistant Fast Repair Clear	12700.3	N/A	N/A	102.4	N/A
acetone	5800	N/A	N/A	76	N/A
n-butyl acetate	10760	N/A	N/A	N/A	N/A
4-chloro-α,α,α-trifluorotoluene	13000	N/A	N/A	N/A	N/A
heptan-2-one	1600	N/A	N/A	16.8	N/A
4-methylpentan-2-one	2080	N/A	N/A	11	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
dioctyltin dilaurate	6450	N/A	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
acetone	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Mild irritant** Amount/concentration applied: 395 mg
n-butyl acetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
heptan-2-one	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 14 mg
4-methylpentan-2-one	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
acetone	**Human - Eyes - Mild irritant** Amount/concentration applied: 186300 ppm **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 10 uL **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 20 mg
n-butyl acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 mg
4-methylpentan-2-one	**Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 uL

SECTION 11: Toxicological information

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 40 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
acetone	STOT SE 3, H336 (Narcotic effects)
n-butyl acetate	STOT SE 3, H336 (Narcotic effects)
4-methylpentan-2-one	STOT SE 3, H336 (Narcotic effects)
2-methoxy-1-methylethyl acetate	STOT SE 3, H336 (Narcotic effects)

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
dioctyltin dilaurate	STOT RE 1, H372 (immune system)

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

SECTION 11: Toxicological information

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

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 or irritation
watering
redness

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

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion : No specific data.

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.

Conclusion/Summary [Product] : Not available.

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
acetone	**Acute - LC50** Fish - *Oncorhynchus mykiss* 5540 mg/l [96 hours] **Acute - LC50 - Fresh water** Daphnia - Water flea - *Daphnia magna* 10 mg/l [48 hours] Effect: Mortality **Chronic - NOEC - Marine water** Algae - Green algae - *Ulva pertusa* 4.95 mg/l [96 hours] Effect: Reproduction **Acute - EC50 - Marine water** Algae - Green algae - *Ulva pertusa* 20.565 mg/l [96 hours] Effect: Reproduction **Chronic - NOEC - Fresh water** Crustaceans - Daphnia - *Daphniidae* 0.016 ml/l [21 days] Effect: Population **Chronic - NOEC - Marine water** Fish - Threespine stickleback - *Gasterosteus aculeatus* - Larvae Age: 7 days 5 µg/l [42 days] Effect: Growth
n-butyl acetate	**Acute - NOEC** Algae 200 mg/l [72 hours] **Acute - EC50** OECD 201 [Alga, Growth Inhibition Test] Algae - *Selenastrum capricornutum* 397 mg/l [72 hours] **Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g 18 mg/l [96 hours] Effect: Mortality **Acute - LC50 - Marine water** Crustaceans - Brine shrimp - *Artemia salina* 32 mg/l [48 hours] Effect: Mortality
heptan-2-one	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 32 days; Size: 18.4 mm; Weight: 0.095 g 131 mg/l [96 hours] Effect: Mortality
4-methylpentan-2-one	**EC50** Algae 400 mg/l [96 hours]

SECTION 12: Ecological information

	EC50 Daphnia - *Daphnia magna* >200 mg/l [48 hours]
	Acute - LC50 - Fresh water Fish - Fathead minnow - *Pimephales promelas* Age: 29 days; Size: 21 mm; Weight: 0.141 g 505 mg/l [96 hours] Effect: Mortality
	Chronic - NOEC - Fresh water Daphnia - Water flea - *Daphnia magna* 78 mg/l [21 days] Effect: Behavior
	Chronic - NOEC - Fresh water Fish - Fathead minnow - *Pimephales promelas* - Embryo Age: <24 hours 168 mg/l [33 days] Effect: Mortality
2-methoxy-1-methylethyl acetate	**Acute - LC50** Fish - *Oncorhynchus mykiss* 134 mg/l [96 hours]
	Acute - EC50 Daphnia - Daphnia - *Daphnia magna* 408 mg/l [48 hours]
	Acute - EC50 Algae - *Pseudokirchnerella subcapitata* >1000 mg/l [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** Fish 2.8 mg/l [96 hours]
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	**Acute - LC50** Fish 2.8 mg/l [96 hours]
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	**Acute - LC50** Fish 0.9 mg/l [96 hours]
	Acute - NOEC Daphnia 6.3 mg/l [21 days]
	Acute - EC50 Algae 0.22 mg/l [72 hours]
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	**Acute - LC50** Fish 0.9 mg/l [96 hours]
	Acute - EC50 Algae 0.22 mg/l [72 hours]
	Acute - NOEC

SECTION 12: Ecological information

Daphnia
6.3 mg/l [21 days]

Conclusion/Summary [Product] : Not available.

12.2 Persistence and degradability

Product/ingredient name	Result
n-butyl acetate	OECD [Ready Biodegradability - Closed Bottle Test] >80% [5 days]
heptan-2-one	69% [28 days] - Readily
2-methoxy-1-methylethyl acetate	OECD [Ready Biodegradability - Manometric Respirometry Test] 83% [28 days] OECD [Inherent Biodegradability: Zahn-Wellens/EMPA Test] 100% [28 days]

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
heptan-2-one	-	-	Readily
4-methylpentan-2-one	-	-	Readily
2-methoxy-1-methylethyl acetate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
acetone	-0.23	-	Low
n-butyl acetate	2.3	-	Low
heptan-2-one	2.26	-	Low
4-methylpentan-2-one	1.9	-	Low
2-methoxy-1-methylethyl acetate	1.2	-	Low
dioctyltin dilaurate	-	<100	Low

12.4 Mobility in soil

Soil/water partition coefficient : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
acetone	No	No	No	Yes	No	No	No
n-butyl acetate	No	No	No	No	No	No	No
4-chloro-α,α,α-trifluorotoluene	No	No	No	No	No	No	No
heptan-2-one	No	No	No	No	No	No	No
4-methylpentan-2-one	No	No	No	No	No	No	No
2-methoxy-1-methylethyl acetate	No	No	No	No	No	No	No
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl) -5-(1,1-dimethylethyl) -4-hydroxyphenyl] -1-oxopropyl]-ω-hydroxy-	No	No	No	No	No	No	No
Poly(oxy-1,2-ethanediyl), α-[3-[3-(2H-benzotriazol-2-yl) -5-(1,1-dimethylethyl) -4-hydroxyphenyl] -1-oxopropyl]-ω-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl) -4-hydroxyphenyl] -1-oxopropoxy]-	No	No	No	No	No	No	No
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	No	No	No	Yes	No	No	No
dioctyltin dilaurate	No	No	No	Yes	No	No	No
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	No	No	No	Yes	No	No	No

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : 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.

Hazardous waste : Yes.

Waste catalogue

SECTION 13: Disposal considerations

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : 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

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	Paint
14.3 Transport hazard class(es)	3 	3 	3 	3 
14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Hazard identification number** 33
Limited quantity 5 L
Special provisions 163, 640C, 650, 367
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.
Special provisions 163, 367, 640C, 650

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

IATA : **Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.
Special provisions A3, A72, A192

14.6 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.

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

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed above the relevant limit.

Substances of very high concern

None of the components are listed above the relevant limit.

Ozone depleting substances

Not listed.

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
8-114 Scratch Resistant Fast Repair Clear	≥90	3
dioctyltin dilaurate	<0.3	20
decamethylcyclopentasiloxane	≤0.1	70
octamethylcyclotetrasiloxane	<0.01	70

Labelling : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

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.

SECTION 15: Regulatory information

Inventory list

Australia	:	At least one component is not listed.
Canada	:	At least one component is not listed.
China	:	At least one component is not listed.
Eurasian Economic Union	:	**Russian Federation inventory**: Not determined.
Japan	:	**Japan inventory (CSCL)**: At least one component is not listed. **Japan inventory (ISHL)**: Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	At least one component is not listed.
Republic of Korea	:	All components are listed, exempted, or notified.
Taiwan	:	At least one component is not listed.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	All components are active or exempted.
Viet Nam	:	Not determined.
15.2 Chemical safety assessment	:	This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
IMO = International Maritime Organization
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Flam. Liq. 2, H225	On basis of test data
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Carc. 2, H351	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

SECTION 16: Other information

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360D	May damage the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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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.

SUMI
Safe Use of Mixtures
Information for end-users

Title : Professional spray painting, near-industrial setting

This document is intended to communicate the conditions of safe use for the product and should always be read in combination with the product's Safety Data Sheet and labels.

General description of the process covered

Indoor spray painting by professionals with efficient ventilation such as spray booth or local exhaust ventilation

Operational conditions

Place of use : Indoor use

Risk management measures (RMM)

Contributing activity	Process category (ies)	Maximum duration	Ventilation	
			Type	ach (air changes per hour)
Preparation of material for application	PROC05	1 to 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Loading of application equipment and handling of coated parts before curing	PROC08a	15 minutes to 1 hour	Enhanced (mechanical) room ventilation	5 - 10
Professional application of coatings and inks by spraying	PROC11	1 to 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Film formation - force drying, stoving and other technologies	PROC04	1 to 4 hours	Local exhaust ventilation	Refer to relevant technical standards
Cleaning	PROC05	1 to 4 hours	Enhanced (mechanical) room ventilation	5 - 10
Waste management	PROC08a	15 minutes to 1 hour	Enhanced (mechanical) room ventilation	5 - 10

Contributing activity	Process category (ies)	Respiratory	Eye	Hands
Preparation of material for application	PROC05	None	Use eye protection according to EN ISO 16321.	Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Loading of application equipment and handling of coated parts before curing	PROC08a	None	Use eye protection according to EN ISO 16321.	Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Professional application of coatings and inks by spraying	PROC11	Compressed-air breathing apparatus to EN 14594 with an assigned protection factor of at least 20.	Use eye protection according to EN ISO 16321.	Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Film formation - force drying, stoving and other technologies	PROC04	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	None	None
Cleaning	PROC05	Wear a respirator conforming to EN140 with an assigned protection factor of at least 10.	Use eye protection according to EN ISO 16321.	Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.
Waste management	PROC08a	Wear a respirator	Use eye protection	Wear chemically resistant

		conforming to EN140 with an assigned protection factor of at least 10.	according to EN ISO 16321.	gloves (tested to EN374) in combination with specific activity training.

See section 8 of this Safety Data Sheet for specifications.

Disclaimer

The information in this Safe Use of Mixture Information sheet is based on the data provided by the substance supplier for the substances in the product for which a chemical safety assessment has been carried out at the time of issue. It does not guarantee safe use of the product and does not replace any occupational risk assessment required by legislation. When developing workplace instructions for employees, SUMI sheets should always be considered in combination with the SDS and the label of the product.
No liability is accepted for any damage, no matter of what kind, which is direct or indirect consequence of acts and/or decisions (partly) based on the contents of this document.