

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

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

1.1 Product identifier

Product identifier : S2081EV
Product name : SYSTEM 20 DIAMOND UHS CLEARCOAT (3:1)
Product type : Liquid.
Other means of identification : S2081EV/1; S2081EV/5
Date of issue/ Date of revision : 19 June 2025
Version : 1
Date of previous issue : No previous validation

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

Identified uses : Coating component.
Uses advised against : Not for sale to or use by consumers.

1.3 Details of the supplier of the safety data sheet

U-POL Limited
 Denington Road
 Wellingborough, Northamptonshire, NN8 2QH
 +44 (0) 1933 230310
 technicalsupport@u-pol.com
e-mail address of person responsible for this SDS : sds-competence@axalta.com
 U-POL Netherlands
 B.V. Hoorgoorddreef 15
 Amsterdam, Netherlands 1101BA
 +31 20 240 2216
 technicalsupport@u-pol.com

1.4 Emergency telephone number

Supplier

Telephone number : +(44)-870-8200418

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
 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.

SECTION 2: Hazards identification

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**Hazard pictograms**

:

**Signal word**

: Danger

Contains

: n-butyl acetate
 4-methylpentan-2-one
 2-hydroxyethyl methacrylate
 Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl
 1,2,2,6,6-pentamethyl-4-piperidyl sebacate
 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]-

Hazard statements

: H225 - Highly flammable liquid and vapour.
 H317 - May cause an allergic skin reaction.
 H336 - May cause drowsiness or dizziness.
 H351 - Suspected of causing cancer.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements**Prevention**

: P201 - Obtain special instructions before use.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition
 sources. No smoking.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapour.

Response

: P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.

Storage

: Not applicable.

Disposal

: Not applicable.

Supplemental label elements

: EUH066 - 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.

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
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
4-methylpentan-2-one	REACH #: 01-2119473980-30 EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	<10	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	[1] [2]
Hydrocarbons, C9, aromatics	REACH #: 01-2119455851-35 EC: 918-668-5	<10	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
heptan-2-one	REACH #: 01-2119902391-49 EC: 203-767-1 CAS: 110-43-0	≤10	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H332 STOT SE 3, H336	[1] [2]
2-butoxyethyl acetate	REACH #: 01-2119475112-47 EC: 203-933-3 CAS: 112-07-2 Index: 607-038-00-2	≤3	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332	[1] [2]
2-hydroxyethyl methacrylate	REACH #: 01-2119490169-29 EC: 212-782-2 CAS: 868-77-9 Index: 607-124-00-X	<1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	[1]
Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	REACH #: 01-2119491304-40 EC: 915-687-0 CAS: 1065336-91-5	≤0.3	Skin Sens. 1A, H317 Repr. 2, H361 (oral) Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
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 EC: 400-830-7 CAS: 104810-48-2	≤0.3	Skin Sens. 1, 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]-	CAS: 104810-47-1	≤0.2	Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
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

SECTION 3: Composition/information on ingredients

[1] Substance classified with a physical, 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. |
| 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 | : No specific data. |
| 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 | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
|---------------------------|---|

SECTION 4: First aid measures

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂, powders, water spray.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for firefighters

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

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 : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

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). Preferably clean with a detergent. Avoid using solvents.

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

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application

SECTION 7: Handling and storage

of this mixture. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.
Do not allow to enter drains or watercourses.
Information on fire and explosion protection
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.
Notes on joint storage
Keep away from: oxidising agents, strong alkalis, strong acids.
Additional information on storage conditions
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.
Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

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

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.
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.
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.
2-butoxyethyl acetate	EH40/2005 WELs (United Kingdom (UK), 1/2020) Absorbed through skin. TWA 8 hours: 20 ppm. STEL 15 minutes: 50 ppm. STEL 15 minutes: 332 mg/m³. TWA 8 hours: 133 mg/m³.

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
n-butyl acetate	DNEL - Workers - Short term - Dermal 11 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Oral 2 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Short term - Oral 2 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Dermal 3.4 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Short term - Dermal 6 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - Workers - Short term - Dermal 11 mg/kg bw/day <u>Effects</u> : Systemic
	DNEL - General population - Long term - Inhalation 12 mg/m³ <u>Effects</u> : Systemic
	DNEL - General population - Long term - Inhalation 35.7 mg/m³ <u>Effects</u> : Local
	DNEL - General population - Short term - Inhalation 300 mg/m³ <u>Effects</u> : Local
	DNEL - General population - Short term - Inhalation 300 mg/m³ <u>Effects</u> : Systemic
	DNEL - Workers - Long term - Inhalation 300 mg/m³ <u>Effects</u> : Local
	DNEL - Workers - Short term - Inhalation 600 mg/m³

SECTION 8: Exposure controls/personal protection

	<div>Effects: Local</div> <div>DNEL - Workers - Short term - Inhalation 600 mg/m³ Effects: Systemic</div> <div>DNEL - Workers - Long term - Inhalation 300 mg/m³ Effects: Systemic</div>
4-methylpentan-2-one	<div>DNEL - Workers - Long term - Dermal 11.8 mg/kg bw/day Effects: Systemic</div> <div>DNEL - Workers - Long term - Inhalation 83 mg/m³ Effects: Local</div> <div>DNEL - Workers - Long term - Inhalation 83 mg/m³ Effects: Systemic</div> <div>DNEL - Workers - Short term - Inhalation 208 mg/m³ Effects: Local</div> <div>DNEL - Workers - Short term - Inhalation 208 mg/m³ Effects: Systemic</div> <div>DNEL - General population - Long term - Oral 4.2 mg/kg bw/day Effects: Systemic</div>
Hydrocarbons, C9, aromatics	<div>DNEL - Workers - Long term - Inhalation 151 mg/m³ Effects: Systemic</div> <div>DNEL - Workers - Long term - Dermal 12.5 mg/kg bw/day Effects: Systemic</div>
heptan-2-one	<div>DNEL - Workers - Long term - Inhalation 83.2 ppm Effects: Systemic</div> <div>DNEL - General population - Long term - Oral 23.32 mg/kg bw/day Effects: Systemic</div> <div>DNEL - General population - Long term - Dermal 23.32 mg/kg bw/day Effects: Systemic</div> <div>DNEL - Workers - Long term - Dermal 54.27 mg/kg bw/day Effects: Systemic</div> <div>DNEL - General population - Long term - Inhalation 84.31 mg/m³ Effects: Systemic</div> <div>DNEL - Workers - Long term - Inhalation 394.25 mg/m³</div>

SECTION 8: Exposure controls/personal protection

	<p><u>Effects</u>: Systemic</p> <p>DNEL - Workers - Short term - Inhalation 1516 mg/m³ <u>Effects</u>: Systemic</p>
2-butoxyethyl acetate	<p>DNEL - Workers - Long term - Inhalation 20 ppm <u>Effects</u>: Systemic</p> <p>DNEL - Workers - Long term - Dermal 102 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - Workers - Long term - Inhalation 133 mg/m³ <u>Effects</u>: Systemic</p> <p>DNEL - General population - Long term - Oral 8.6 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - General population - Short term - Oral 36 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - General population - Short term - Dermal 72 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - General population - Long term - Dermal 102 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - Workers - Short term - Dermal 120 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - Workers - Long term - Dermal 169 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - Workers - Short term - Inhalation 333 mg/m³ <u>Effects</u>: Local</p>
2-hydroxyethyl methacrylate	<p>DNEL - Workers - Long term - Inhalation 0.908 ppm <u>Effects</u>: Systemic</p> <p>DNEL - General population - Long term - Oral 0.83 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - General population - Long term - Dermal 0.83 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - Workers - Long term - Dermal 1.39 mg/kg bw/day <u>Effects</u>: Systemic</p> <p>DNEL - General population - Long term - Inhalation 1.45 mg/m³</p>

SECTION 8: Exposure controls/personal protection

	Effects: Systemic
	DNEL - Workers - Long term - Inhalation 4.9 mg/m³ Effects: Systemic
Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 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 Effects: Systemic
	DNEL - General population - Long term - Oral 0.18 mg/kg bw/day Effects: Systemic
	DNEL - General population - Long term - Inhalation 0.31 mg/m³ Effects: Systemic
	DNEL - General population - Long term - Dermal 0.9 mg/kg bw/day Effects: Systemic
	DNEL - Workers - Long term - Inhalation 1.27 mg/m³ Effects: Systemic
	DNEL - Workers - Long term - Dermal 1.8 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 - 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 Effects: Systemic

PNECs	
Product/ingredient name	Result

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SECTION 8: Exposure controls/personal protection

n-butyl acetate	Soil
	0.09 mg/kg
	Fresh water
	0.18 mg/l
	Sewage Treatment Plant
	35.6 mg/l
	Marine water
	0.018 mg/l
	Fresh water sediment
	0.981 mg/kg
	Marine water sediment
	0.098 mg/kg
4-methylpentan-2-one	Marine water
	0.06 mg/l
	Fresh water
	0.6 mg/l
	Sediment
	8.27 mg/kg
	Fresh water
	0.304 mg/l
	Marine water
	0.0304 mg/l
2-butoxyethyl acetate	Fresh water sediment
	2.03 mg/kg dwt
	Marine water sediment
	0.203 mg/kg dwt
	Soil
	0.415 mg/kg dwt
	Sewage Treatment Plant
	90 mg/l
	Fresh water
	0.482 mg/l
	Marine water
	0.0482 mg/l
2-hydroxyethyl methacrylate	Sewage Treatment Plant
	10 mg/l
	Fresh water sediment
	1.98 mg/kg dwt
	Marine water sediment
	0.198 mg/kg dwt
	Soil
	0.113 mg/kg dwt
Reaction mass of bis(1,2,2,6,6-pentamethyl-	Fresh water

SECTION 8: Exposure controls/personal protection

4-piperidyl) sebacate and methyl
1,2,2,6,6-pentamethyl-4-piperidyl sebacate

0.0022 mg/l

Marine water

0.00022 mg/l

Secondary Poisoning

0.009 mg/l

Fresh water sediment

1.05 mg/kg

Marine water sediment

0.11 mg/kg

Soil

0.21 mg/kg

Sewage Treatment Plant

1 mg/l

8.2 Exposure controls

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

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 : Use safety eyewear designed to protect against splash of liquids.

Skin protection

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves : Duration / breakthrough time: <1 hour,
Glove material: NBR, nitrile rubber, material thickness as splash protection: at least 0.2 mm, (EN374)
Glove material: NBR, nitrile rubber Material thickness for short-term contact: at least 0.5 mm, (EN374)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

Expert judgment

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

SECTION 8: Exposure controls/personal protection

Body protection	: Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
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	: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.
	Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.
Environmental exposure controls	: Do not allow to enter drains or watercourses.

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	: Clear.
Odour	: Not available.
Odour threshold	: Not available.
Melting point/freezing point	: Technically not possible to measure
Initial boiling point and boiling range	: 114 to 200°C (237.2 to 392°F)
Flammability (solid, gas)	: Not available.
Upper/lower flammability or explosive limits	: Lower: 0.7% Upper: 8% Not available.
Flash point	: Closed cup: 14°C (57.2°F)
Auto-ignition temperature	: 280°C (536°F)
Decomposition temperature	: Not applicable.
pH	: Not applicable.
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): 5.2 mm ² /s
Solubility in water	: Not available.
Miscible with water	: No.
Partition coefficient: n-octanol/water	: Not applicable.
Vapour pressure	: 0.64 kPa (4.8 mm Hg)
Relative density	: Not available.
Density	: 0.98 g/cm ³
Vapour density	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.
Weight volatiles	: 49.3 % (w/w)
VOC content	: 48.6 % (w/w) (2010/75/EU)

SECTION 9: Physical and chemical properties

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Further information Not available.

9.2.2 Other safety characteristics

Miscible with water : No.

Further information Not available.

room temperature (=20°C)

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 : Stable under recommended storage and handling conditions (see Section 7).

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

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
<u>Acute toxicity</u>	
Product/ingredient name	Result
n-butyl acetate	Rat - Oral - LD50 10768 mg/kg <u>Toxic effects:</u> Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes
	Rabbit - Dermal - LD50 >17600 mg/kg
	Rat - Inhalation - LC50 Vapour 21.1 mg/l [4 hours]
4-methylpentan-2-one	Rat - Oral - LD50 2080 mg/kg
	Rat - Inhalation - LC50 Vapour 16.4 mg/l [4 hours]
Hydrocarbons, C9, aromatics	Rat - Female - Oral - LD50 3492 mg/kg OECD 401
	Rabbit - Dermal - LD50

SECTION 11: Toxicological information

	>3160 mg/kg OECD 402
heptan-2-one	Rat - Oral - LD50 1600 mg/kg <u>Toxic effects</u> : Behavioral - Ataxia Lung, Thorax, or Respiration - Respiratory depression Rabbit - Dermal - LD50 10332 mg/kg Rat - Inhalation - LC50 Vapour 16.8 mg/l [4 hours]
2-butoxyethyl acetate	Rabbit - Dermal - LD50 1500 mg/kg <u>Toxic effects</u> : Kidney, Ureter, and Bladder - Hematuria Kidney, Ureter, and Bladder - Other changes in urine composition Blood - Normocytic anemia Rat - Male, Female - Oral - LD50 1880 mg/kg OECD [Acute Oral Toxicity] Rat - Inhalation - LC50 Vapour 7.82 mg/l [4 hours] OECD [Acute Inhalation Toxicity]
2-hydroxyethyl methacrylate	Rat - Oral - LD50 5050 mg/kg <u>Toxic effects</u> : Behavioral - Coma
Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rat - Male, Female - Oral - LD50 3230 mg/kg OECD [Acute Oral toxicity - Acute Toxic Class Method] Rat - Male, Female - Dermal - LD50 >3170 mg/kg OECD [Acute Dermal Toxicity]

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)
mixture	18593.4	75530.1	N/A	73.7	N/A
n-butyl acetate	10768	N/A	N/A	21.1	N/A
4-methylpentan-2-one	2080	N/A	N/A	11	N/A
Hydrocarbons, C9, aromatics	3492	N/A	N/A	N/A	N/A
heptan-2-one	1600	10332	N/A	16.8	N/A
2-butoxyethyl acetate	1880	1500	N/A	11	N/A
2-hydroxyethyl methacrylate	5050	N/A	N/A	N/A	N/A
Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	3230	N/A	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
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SECTION 11: Toxicological information

4-methylpentan-2-one

Rabbit - Skin - Mild irritantDuration of treatment/exposure: 24 hoursAmount/concentration applied: 500 mg

heptan-2-one

Rabbit - Skin - Mild irritantDuration of treatment/exposure: 24 hoursAmount/concentration applied: 14 mg

2-hydroxyethyl methacrylate

Rabbit - Skin - Irritant**Conclusion/Summary [Product]** : Not available.**Serious eye damage/eye irritation****Product/ingredient name**

4-methylpentan-2-one

Result**Rabbit - Eyes - Moderate irritant**Duration of treatment/exposure: 24 hoursAmount/concentration applied: 100 uL**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.

SECTION 11: Toxicological information**Specific target organ toxicity (single exposure)****Product/ingredient name**

n-butyl acetate
4-methylpentan-2-one
Hydrocarbons, C9, aromatics

heptan-2-one

Result

STOT SE 3, H336 (Narcotic effects)
STOT SE 3, H336 (Narcotic effects)
STOT SE 3, H335 (Respiratory tract irritation)
STOT SE 3, H336 (Narcotic effects)
STOT SE 3, H336 (Narcotic effects)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard**Product/ingredient name**

Hydrocarbons, C9, aromatics

Result

ASPIRATION HAZARD - Category 1

Information on likely routes of exposure

Not available.

Potential acute health effects

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

SECTION 11: Toxicological information

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
n-butyl acetate	Acute - LC50 - Marine water Fish - Inland silverside - <i>Menidia beryllina</i> 185 ppm [96 hours] <u>Effect</u> : Mortality
4-methylpentan-2-one	Acute - LC50 - Fresh water Fish - Fathead minnow - <i>Pimephales promelas</i> <u>Age</u> : 29 days; <u>Size</u> : 21 mm; <u>Weight</u> : 0.141 g 505 mg/l [96 hours] <u>Effect</u> : Mortality Chronic - NOEC - Fresh water Daphnia - Water flea - <i>Daphnia magna</i> 78 mg/l [21 days] <u>Effect</u> : Behavior Chronic - NOEC - Fresh water Fish - Fathead minnow - <i>Pimephales promelas</i> - Embryo <u>Age</u> : <24 hours 168 mg/l [33 days] <u>Effect</u> : Mortality
Hydrocarbons, C9, aromatics	Acute - LC50 OECD 203 Fish - Trout - <i>Oncorhynchus mykiss</i> 9.2 mg/l [96 hours]
heptan-2-one	Acute - LC50 - Fresh water Fish - Fathead minnow - <i>Pimephales promelas</i> <u>Age</u> : 32 days; <u>Size</u> : 18.4 mm; <u>Weight</u> : 0.095 g 131 mg/l [96 hours] <u>Effect</u> : Mortality
2-butoxyethyl acetate	Chronic - LC50 Fish - Trout 11 mg/l [96 hours]
2-hydroxyethyl methacrylate	Acute - LC50 - Fresh water Fish - Fathead minnow - <i>Pimephales promelas</i> - Juvenile (Fledgling, Hatchling, Weanling) <u>Age</u> : 28 to 34 days; <u>Size</u> : 20.9 mm; <u>Weight</u> : 0.134 g 227 mg/l [96 hours] <u>Effect</u> : Mortality
Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl	Acute - LC50 OECD 203, semistatic

SECTION 12: Ecological information

1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Fish - *Brachydanio rerio*

0.9 mg/l [96 hours]

Chronic - NOEC - Fresh water

OECD [Daphnia Magna Reproduction Test]

Daphnia

1 mg/l [21 days]

Acute - EC50 - Fresh water

OECD [Alga, Growth Inhibition Test]

Algae

1.68 mg/l [72 hours]

Conclusion/Summary [Product] : Not available.**12.2 Persistence and degradability****Product/ingredient name****Result**

2-butoxyethyl acetate

>60% [28 days] - Readily

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethyl acetate	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
n-butyl acetate	2.3	-	Low
4-methylpentan-2-one	1.9	-	Low
heptan-2-one	2.26	-	Low
2-butoxyethyl acetate	1.51	-	Low
2-hydroxyethyl methacrylate	0.42	-	Low

12.4 Mobility in soil**Soil/water partition coefficient**

: Not available.

Mobility

: Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
4-methylpentan-2-one	No	N/A	N/A	No	N/A	N/A	N/A
Hydrocarbons, C9, aromatics	No	N/A	N/A	No	N/A	N/A	N/A
heptan-2-one	No	N/A	N/A	No	N/A	N/A	N/A
2-butoxyethyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
2-hydroxyethyl methacrylate	No	N/A	N/A	No	N/A	N/A	N/A
Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-	N/A	N/A	N/A	Yes	N/A	N/A	N/A

SECTION 12: Ecological information

4-piperidyl sebacate Poly(oxy-1,2-ethanediyl), α- [3-[3-(2H-benzotriazol-2-yl) -5-(1,1-dimethylethyl) -4-hydroxyphenyl] -1-oxopropyl]-ω-hydroxy-	No	N/A	N/A	No	N/A	N/A	N/A
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	N/A	N/A	No	N/A	N/A	N/A

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 : The classification of the product may meet the criteria for a hazardous waste.





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.

Type of packaging	Waste catalogue
	15 01 10* packaging containing residues of or contaminated by hazardous substances

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 

SECTION 14: Transport information

14.4 Packing group	II	II	II	II
14.5 Environmental hazards	No.	Yes.	No.	No.

Additional information

ADR/RID : **Special provisions** 640 (D)
Tunnel code (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.
Special provisions 640 (D)

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.

Substances of very high concern

None of the components are listed.

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

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria**Category**

P5c

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes

International regulations**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

SECTION 15: Regulatory information

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
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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
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

SECTION 16: Other information

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
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
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. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 6/19/2025

Version : 1

Date of previous issue : No previous validation

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