SAFETY DATA SHEET

Protecta-Coat - Resin

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

1.1 Product identifier

Product name : Protecta-Coat - Resin

Product description : Coating.

Product type : Liquid.

UFI : MQ11-Q0MY-Q00R-EP84

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

Identified uses
Professional use Industrial use

Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

Watco UK Limited
Eastgate Court
195-205 High Street
Guildford
Surrey
GU1 3EH
Telephone no.: +44 (0) 1483 425000 (08:00 - 18:00)
Fax no.: +44 (0) 1483 428888

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number Ireland : 809 2166
Available 8am to 10pm 7 days per week

Supplier

Telephone number Ireland : +353 19014670

Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Eye Irrit. 2, H319
Skin Sens. 1, H317
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 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.

SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : Not applicable.

Prevention : P280 - Wear protective gloves. Wear eye or face protection.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate
diethyl fumarate
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate
pine oil
Turpentine, oil
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Supplemental label elements : Not applicable.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006 : Not applicable.

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

Ireland

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl) methane	REACH #: 01-0000015937-58 EC: 412-060-9 CAS: 136210-32-7 Index: 607-350-00-9	≥50 - ≤75	Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	REACH #: 01-0000017556-64 EC: 429-270-1 CAS: 136210-30-5 Index: 607-521-00-8	≥25 - ≤50	Skin Sens. 1, H317 Aquatic Chronic 3, H412	-	[1]
hydrocarbons, aromatic, C9	REACH #: 01-2119455851-35 List #: 918-668-5	≥10 - <20	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1]
diethyl fumarate	EC: 210-819-7 CAS: 623-91-6	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335	ATE [Oral] = 1780 mg/kg	[1]
di-isobutyl ketone	REACH #: 01-2119474441-41 EC: 203-620-1 CAS: 108-83-8 Index: 606-005-00-X	≤3	Flam. Liq. 3, H226 STOT SE 3, H335	STOT SE 3, H335: C ≥ 10%	[1] [2]
diethyl fumarate	EC: 210-819-7 CAS: 623-91-6	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335	ATE [Oral] = 1780 mg/kg	[1]
proprietary additive	-	≤3	Aquatic Chronic 2, H411	-	[1]
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	REACH #: 01-2119491304-40 EC: 255-437-1 CAS: 41556-26-7	≤1	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
pine oil	CAS: 8002-09-3 List #: 616-792-1	≤1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	-	[1]
butyl glycollate	REACH #: 01-2119514685-36 EC: 230-991-7 CAS: 7397-62-8	≤1	Eye Dam. 1, H318 Repr. 2, H361	-	[1]

SECTION 3: Composition/information on ingredients

Turpentine, oil	REACH #: 01-2119553060-53 EC: 232-350-7 CAS: 8006-64-2 Index: 650-002-00-6	≤0,3	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 13,7 mg/l	[1] [2]
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC: 280-060-4 CAS: 82919-37-7	≤0,3	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 **See Section 16 for the full text of the H statements declared above.**	M [Acute] = 1 M [Chronic] = 1	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

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

Type

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

List numbers have no legal significance.

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 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 adverse health effects persist or are severe. 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 with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. 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 adverse health effects persist or are severe. 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.

SECTION 4: First aid measures

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Inhalation : No specific data.

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

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 an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. 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
nitrogen oxides

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.

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

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

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.

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. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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

Store in accordance with local regulations. 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. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SECTION 7: Handling and storage

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Ireland

Product/ingredient name	Exposure limit values
di-isobutyl ketone	**NAOSH (Ireland, 3/2016).** OELV-8hr: 150 mg/m³ 8 hours. OELV-8hr: 25 ppm 8 hours.
Turpentine, oil	**NAOSH (Ireland, 3/2016).** OELV-15min: 840 mg/m³ 15 minutes. OELV-15min: 150 ppm 15 minutes. OELV-8hr: 112 mg/m³ 8 hours. OELV-8hr: 20 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard 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	Type	Exposure	Value	Population	Effects
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	DNEL	Long term Oral	4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	28 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	Workers	Systemic
hydrocarbons, aromatic, C9	DNEL	Long term Inhalation	150 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	25 mg/kg	Workers	Systemic
	DNEL	Long term Dermal	11 mg/kg	General population	Systemic
	DNEL	Long term Inhalation	32 mg/m³	General population	Systemic
	DNEL	Long term Oral	11 mg/kg	General population	Systemic
di-isobutyl ketone	DNEL	Long term Inhalation	290 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	80 mg/kg	Workers	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	479 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	145 mg/m³	General population	Local
	DNEL	Long term Dermal	28,5 mg/kg	General population	Systemic
	DNEL	Long term Inhalation	171 mg/kg	General population	Systemic
	DNEL	Long term Oral	7,14 mg/kg	General population	Systemic
butyl glycollate	DNEL	Long term Dermal	34,7 mg/kg	Workers	Systemic
	DNEL	Long term Inhalation	21,2 mg/m³	Workers	Systemic
	DNEL	Long term Oral	2 mg/kg	General population	Systemic
	DNEL	Long term Dermal	20,8 mg/kg	General population	Systemic
	DNEL	Long term Dermal	0,28 mg/kg	General population	Local
	DNEL	Long term Inhalation	43,5 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	43,5 mg/m³	General population	Local
Turpentine, oil	DNEL	Short term Dermal	0,161 mg/cm²	Workers	Local
	DNEL	Short term Dermal	25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	5,98 mg/m³	Workers	Systemic
	DNEL	Short term Dermal	0,081 mg/cm²	General population [Consumers]	Local
	DNEL	Long term Inhalation	1,06 mg/m³	General population [Consumers]	Systemic
	DNEL	Long term Oral	0,31 mg/kg bw/day	General population [Consumers]	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Fresh water	0,00013 mg/l	-
	Marine	0,000013 mg/l	-
	Fresh water sediment	0,21 mg/kg dwt	-
	Marine water sediment	0,02 mg/kg dwt	-
	Soil	0,1 mg/kg dwt	-
	Sewage Treatment Plant	31,1 mg/l	-
	Secondary Poisoning	66,67 mg/kg	-
di-isobutyl ketone	Fresh water	0,03 mg/l	-
	Marine water	0,003 mg/l	-
	Fresh water sediment	0,46 mg/kg	-
	Marine water sediment	0,046 mg/kg	-
	Sewage Treatment Plant	2,55 mg/l	-
	Soil	0,0746 mg/kg	-
Reaction mass of ethylbenzene and xylene	Fresh water	0,327 mg/l	-
	Marine water	0,327 mg/l	-
	Fresh water sediment	12,46 mg/kg	-
	Marine water sediment	12,46 mg/kg	-

SECTION 8: Exposure controls/personal protection

	Soil	2,31 mg/kg	-
	Sewage Treatment Plant	6,58 mg/l	-
butyl glycollate	Fresh water	0,05 mg/l	-
	Soil	0,0112 mg/kg	-
	Fresh water sediment	0,203 mg/kg	-
	Sewage Treatment Plant	232 mg/l	-
Turpentine, oil	Fresh water sediment	8,8 µg/l	-
	Marine	0,88 µg/l	-
	Fresh water sediment	2,27 mg/kg	-
	Fresh water sediment	0,227 mg/kg	-
	Soil	0,45 mg/kg	-
	Sewage Treatment Plant	6,6 mg/l	-
2-methoxy-1-methylethyl acetate	Fresh water	0,635 mg/l	-
	Fresh water sediment	3,29 mg/kg	-
	Marine water sediment	0,329 mg/kg	-
	Soil	0,29 mg/kg	-
	Sewage Treatment Plant	100 mg/l	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. Recommended: safety glasses with side-shields. (EN 166)

Skin 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.

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): polyethylene/ethylene vinyl alcohol (PE/EVAL)

SECTION 8: Exposure controls/personal protection

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. 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.

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. Recommended: Wear overalls or long sleeved shirt. (EN 467)

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: organic vapour (Type AX) and particulate filter (EN 141)

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

Physical state : Liquid.

Colour : Various

Odour : Solvent-like

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : >200°C (>392°F) [Literature]

Flammability (solid, gas) : Not available.

Lower and upper explosion limit : Not available.

Flash point : Closed cup: >60°C (>140°F) [Literature]

Auto-ignition temperature : Not relevant due to nature of the product.

Decomposition temperature : Not available.

pH : Not applicable.

pH : Justification : Product is non-polar/aprotic.

Viscosity : Dynamic (room temperature): 140 to 250 mPa·s [DIN EN ISO 3219]
Kinematic (40°C): >20,5 mm^2/s

Solubility(ies) :

Not available.

Solubility in water : Not available.

Miscible with water : No.

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

Vapour pressure :

SECTION 9: Physical and chemical properties

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
hydrocarbons, aromatic, C9	1,5001	0,2	calculated.			

Evaporation rate : Not available.

Relative density : 1,02 to 1,03

Density : 1 to 1,06 g/cm³ [20°C (68°F)] [DIN 53217]

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

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 : No specific data.

10.5 Incompatible materials : No specific data.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl) methane	LC50 Inhalation Dusts and mists	Rat - Male, Female	>4,224 mg/l	4 hours
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	LC50 Inhalation Dusts and mists	Rat	>4,224 mg/m³	4 hours
	LD50 Oral	Rat	>2000 mg/kg	-
hydrocarbons, aromatic, C9	LD50 Oral	Rat	8400 mg/kg	-
diethyl fumarate	LD50 Oral	Rat	1780 mg/kg	-
di-isobutyl ketone	LCLo Inhalation Vapour	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	16120 mg/kg	-
	LD50 Oral	Rat	5750 mg/kg	-
diethyl fumarate	LD50 Oral	Rat	1780 mg/kg	-
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
pine oil	LD50 Dermal	Rabbit	5 g/kg	-
	LD50 Oral	Rat	2,1 g/kg	-

SECTION 11: Toxicological information

butyl glycollate	LD50 Oral	Rat	4595 mg/kg	-
Turpentine, oil	LC50 Inhalation Vapour	Rat	16600 mg/m³	2 hours
	LC50 Inhalation Vapour	Rat	13700 mg/m³	4 hours
	LC50 Inhalation Vapour	Rat	13700 mg/m³	4 hours
	LD50 Oral	Rat	3956 mg/kg	-
	LDLo Dermal	Rabbit	5010 mg/kg	-
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

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)
hydrocarbons, aromatic, C9	8400	N/A	N/A	N/A	N/A
diethyl fumarate	1780	N/A	N/A	N/A	N/A
di-isobutyl ketone	5750	16120	N/A	N/A	N/A
diethyl fumarate	1780	N/A	N/A	N/A	N/A
pine oil	2100	5000	N/A	N/A	N/A
butyl glycollate	4595	N/A	N/A	N/A	N/A
Turpentine, oil	500	1100	N/A	13,7	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Eyes - Redness of the conjunctivae	Rabbit	1	-	-
	Skin - Mild irritant	Rabbit	-	-	-
hydrocarbons, aromatic, C9	Eyes - Mild irritant	Rabbit	-	24 hours 100 Ul	-
di-isobutyl ketone	Eyes - Mild irritant	Human	-	15 minutes 25 parts per million	-
	Eyes - Mild irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 10 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	Skin - Oedema	Rabbit	0	-	-
pine oil	Skin - Severe irritant	Rabbit	-	24 hours 500 milligrams	-
Turpentine, oil	Skin - Severe irritant	Human	-	0.1 Percent	-
	Skin - Severe irritant	Rabbit	-	500 microliters	-
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Skin - Oedema	Rabbit	0	-	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Eyes : Causes serious eye irritation.

Respiratory : Based on available data, the classification criteria are not met.

Sensitisation

SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	skin	Guinea pig	Sensitising
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	skin	Guinea pig	Sensitising
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	skin	Guinea pig	Sensitising

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal	Negative
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, aromatic, C9	-	-	Negative	Mammal - species unspecified	Route of exposure unreported	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
hydrocarbons, aromatic, C9	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
diethyl fumarate	Category 3	-	Respiratory tract irritation
di-isobutyl ketone	Category 3	-	Respiratory tract irritation
diethyl fumarate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

SECTION 11: Toxicological information

Aspiration hazard

Product/ingredient name	Result
hydrocarbons, aromatic, C9	ASPIRATION HAZARD - Category 1
pine oil	ASPIRATION HAZARD - Category 1
Turpentine, oil	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : No specific data.

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

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

Product/ingredient name	Result	Species	Dose	Exposure
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Sub-acute NOAEL Oral	Rat	1000 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

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

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

SECTION 11: Toxicological information

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl)methane	Chronic NOEC 0,01 mg/l	Daphnia spec.	21 days
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Acute EC50 88,6 mg/l	Daphnia spec.	48 hours
	Acute IC50 113 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute LC50 66 mg/l	Fish	96 hours
	Chronic NOEC 0,01 mg/l	Daphnia spec.	21 days
diethyl fumarate	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
diethyl fumarate	Acute LC50 4500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	Acute EC50 1,68 mg/l	Aquatic plants - Desmodesmus subspicatus	72 hours
	Acute EC50 >100 mg/l	Bacteria	3 hours
	Acute EC50 20 mg/l	Daphnia spec.	24 hours
	Acute LC50 0,97 mg/l	Fish	96 hours
	Acute LC50 7,9 mg/l	Fish	96 hours
	Chronic NOEC 1 mg/l	Daphnia spec.	21 days
pine oil	Acute EC50 24,5 ppm Fresh water	Daphnia spec. - Daphnia magna	48 hours
	Acute LC50 18,35 ppm Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Turpentine, oil	Acute EC50 17 mg/l	Algae	72 hours
	Acute EC50 8,8 mg/l	Daphnia spec.	48 hours
	Acute LC50 29 mg/l	Fish	96 hours
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Acute EC50 1,68 mg/l	Aquatic plants - Desmodesmus subspicatus	72 hours
	Acute EC50 >100 mg/l	Bacteria	3 hours
	Acute EC50 20 mg/l	Daphnia spec.	24 hours
	Acute LC50 0,97 mg/l	Fish	96 hours
	Acute LC50 7,9 mg/l	Fish	96 hours
	Chronic NOEC 1 mg/l	Daphnia spec.	21 days

Conclusion/Summary : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl)methane	OECD 301F	13 % - 28 days	-	-
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	OECD 301F	13 % - Not readily - 28 days	-	-
	OECD 302C	0 % - Not readily - 28 days	-	-
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	OECD 301F	38 % - Not readily - 28 days	-	-
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	OECD 301F	38 % - Not readily - 28 days	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl)methane	-	-	Not readily
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	Fresh water 28 days, pH 4, 25°C (OECD 111) Fresh water 1 days, pH 7, 25°C (OECD 111) Fresh water 0,7 days, pH 9, 25°C (OECD 111)	-	Not readily
hydrocarbons, aromatic, C9	-	-	Readily
di-isobutyl ketone	-	-	Readily
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	-	-	Not readily
butyl glycollate	-	-	Readily
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
bis(4-(1,2-bis (ethoxycarbonyl)ethylamino) -3-methylcyclohexyl)methane	5,99	0,25	low
tetraethylN,N'-(methylenedicyclohexane-4,1-diyl) bis-dl-aspartate	5,16	0,25	low
hydrocarbons, aromatic, C9	3.7 to 4.5	10 to 2500	high
di-isobutyl ketone	3,71	-	low
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	2.4 to 2.8	-	low
butyl glycollate	0,38	-	low
Turpentine, oil	4,5	-	high
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	2.4 to 2.8	-	low

12.4 Mobility in soil

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

Mobility : Non-volatile.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

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.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other 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. 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 or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

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

EU Regulation (EC) No. 1907/2006 (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.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : 2004/42/EC - IIA/j: 500g/l (2010). <= 120g/l VOC.

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

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

Ozone depleting substances (1005/2009/EC)

Not listed.

Prior Informed Consent (PIC) (649/2012/EC)

Not listed.

Persistent Organic Pollutants (850/2004/EC)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

Ireland

Biocidal products regulation : Not applicable.

References : Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)
Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)
Safety, Health and Welfare at Work (General Application) Regulations 2007
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

International regulations

Stockholm Convention on Persistent Organic Pollutants

SECTION 15: Regulatory information

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3209 90 00 00

Inventory list

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Eurasian Economic Union : **Russian Federation inventory**: Not determined.

Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.

New Zealand : Not determined.

Philippines : At least one component is not listed.

Republic of Korea : At least one component is not listed.

Taiwan : Not determined.

Thailand : Not determined.

Turkey : Not determined.

United States : At least one component is not listed.

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 : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412	Expert judgment Expert judgment Expert judgment

Full text of abbreviated H statements

Ireland

SECTION 16: Other information

Full text of abbreviated H statements :

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.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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 [CLP/GHS] :

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
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - 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 printing : 15/03/2023

Date of issue/ Date of revision : 20/08/2022

Date of previous issue : No previous validation

Version : 4

Notice to reader

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage,

SECTION 16: Other information

use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

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.