

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture HumiSeal UV40

Registration number -

Synonyms None.

Product code EX0000-4191

Issue date 04-20-2022

Version number 01

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

Identified uses Protective coating for printed circuit board. Industrial use.

Uses advised against No other uses are advised.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name HUMISEAL EUROPE LTD.
Address 505 Eskdale Road
Winnersh
Wokingham Berkshire RG41 5TU
UK

Division A CHASE CORPORATION COMPANY

Telephone General Assistance +44 (0) 118 944 2333

e-mail europetechsupport@chasecorp.com

Contact person Not available.

1.4. Emergency telephone number Chemtrec U.K. +44 (0) 870 820 0418

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.

Environmental hazards

Hazardous to the aquatic environment, acute aquatic hazard	Category 1	H400 - Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term aquatic hazard	Category 1	H410 - Very toxic to aquatic life with long lasting effects.

Hazard summary

Causes serious eye irritation. Causes skin irritation. May cause irritation to the respiratory system. May cause an allergic skin reaction. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate, Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, Hexamethylene diisocyanate, oligomers, Isocyanatoacrylate, n-butyl acetate, phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

Hazard pictograms



Signal word Warning

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P261 Avoid breathing mist/vapors.
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear eye protection/face protection.
P280 Wear protective gloves.

Response

P312 Call a POISON CENTER/doctor if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Storage Not available.

Disposal Not available.

Supplemental label information 48.86% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. EUH208 - Contains phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide. May produce an allergic reaction.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

Mixture

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	40 - < 50	5888-33-5 227-561-6	01-2119957862-25	607-133-00-9	
Classification: Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317, STOT SE 3;H335, Aquatic Acute 1;H400, Aquatic Chronic 1;H410					
Isocyanatoacrylate	40 - < 50	Unknown	-	-	
Classification: Skin Sens. 1;H317, Aquatic Chronic 3;H412					
Hexamethylene diisocyanate, oligomers	3 - < 5	28182-81-2 500-060-2	01-2119488934-20	-	#
Classification: Acute Tox. 4;H332, Skin Sens. 1;H317, STOT SE 3;H335					
2-hydroxy-2-methylpropiophenone	1 - < 3	7473-98-5 231-272-0	-	-	
Classification: Acute Tox. 4;H302					

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
n-butyl acetate	1 - < 3	123-86-4 204-658-1	-	607-025-00-1	#
Classification: Flam. Liq. 3;H226, STOT SE 3;H336					
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	< 1	162881-26-7 423-340-5	-	015-189-00-5	
Classification: Skin Sens. 1A;H317					
Tosyl isocyanate	< 1	4083-64-1 223-810-8	01-2119980050-47	615-012-00-7	#
Classification: Skin Irrit. 2;H315, Eye Irrit. 2;H319, Resp. Sens. 1;H334, STOT SE 3;H335					
1,7,7-trimethyltricyclo[2.2.1.0 ^{2,6}]heptane	< 0.3	508-32-7 208-083-7	-	-	
Classification: Aquatic Acute 1;H400, Aquatic Chronic 1;H410					
Camphene	< 0.3	79-92-5 201-234-8	-	-	
Classification: Flam. Sol. 2;H228, Eye Irrit. 2;H319, Aquatic Acute 1;H400, Aquatic Chronic 1;H410					
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate	< 0.2	84434-11-7 282-810-6	01-2119987994-10	-	
Classification: Skin Sens. 1B;H317, Aquatic Chronic 2;H411					

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. #: This substance has been assigned Union workplace exposure limit(s).

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Water. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.

For emergency responders Keep unnecessary personnel away. Avoid breathing mist/vapors. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Hexamethylene diisocyanate, oligomers (CAS 28182-81-2)	STEL	0.07 mg/m ³
	TWA	0.02 mg/m ³
n-butyl acetate (CAS 123-86-4)	STEL	966 mg/m ³
	TWA	200 ppm 724 mg/m ³ 150 ppm
Tosyl isocyanate (CAS 4083-64-1)	STEL	0.07 mg/m ³
	TWA	0.02 mg/m ³

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU

Components	Type	Value
n-butyl acetate (CAS 123-86-4)	STEL	723 mg/m ³
		150 ppm
	TWA	241 mg/m ³ 50 ppm

Biological limit values

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling Time
Hexamethylene diisocyanate, oligomers (CAS 28182-81-2)	1 umol/mol	Isocyanate-derived diamine	Creatinine in urine	*
Tosyl isocyanate (CAS 4083-64-1)	1 umol/mol	Isocyanate-derived diamine	Creatinine in urine	*

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear appropriate chemical resistant clothing.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Not applicable.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Environmental exposure controls Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Not available.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range 527 °F (275 °C) estimated

Flash point 167.0 °F (75.0 °C) Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0.003 kPa estimated

Vapor density Not available.

Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Solubility (other)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

9.2. Other information

Density	1.05 - 1.15 g/cm ³
Kinematic viscosity	430 - 765 mm ² /s
Kinematic viscosity temperature	73.4 °F (23 °C)
VOC	2.67 %

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Not available.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Eye contact	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Acute toxicity

Components	Species	Test Results
2-hydroxy-2-methylpropiophenone (CAS 7473-98-5)		
<u>Acute</u>		
Dermal		
LD50	Rat	6929 mg/kg
Oral		
LD50	Rat	1694 mg/kg
Camphene (CAS 79-92-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg
Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg

Components	Species	Test Results
Oral		
LD50	Rat	> 5000 mg/kg
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (CAS 5888-33-5)		
Acute		
Dermal		
LD50	Rabbit	> 3000 mg/kg
Oral		
LD50	Rat	4350 mg/kg
Hexamethylene diisocyanate, oligomers (CAS 28182-81-2)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	0.39 mg/l, 4 hours
Oral		
LD50	Rat	> 2000 mg/kg
Isocyanatoacrylate		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	> 5 mg/l, 4 hours
Oral		
LD50	Rat	> 5000 mg/kg
n-butyl acetate (CAS 123-86-4)		
Acute		
Dermal		
LD50	Rabbit	14110 mg/kg
Inhalation		
<i>Vapor</i>		
LC50	Rat	23.4 mg/l, 4 hours
Oral		
LD50	Rat	10760 mg/kg
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide (CAS 162881-26-7)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg
Tosyl isocyanate (CAS 4083-64-1)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	2330 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.	
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.	
Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.	

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Mixture versus substance information No information available.

SECTION 12: Ecological information

12.1. Toxicity Very toxic to aquatic life with long lasting effects.

Product		Species	Test Results
HumiSeal UV40			
Aquatic			
Fish	LC50	Fish	11432.1602, 96 hours estimated
<i>Acute</i>			
Algae	EC50	Algae	69.6429, 72 hours estimated
Crustacea	EC50	Daphnia	45.6963, 48 hours estimated
Fish	LC50	Fish	0.8328, 96 hours estimated
Components		Species	Test Results

2-hydroxy-2-methylpropiophenone (CAS 7473-98-5)

Aquatic

Acute

Algae EC50 Algae 1.95, 72 hours

Camphene (CAS 79-92-5)

Aquatic

Acute

Crustacea EC50 Daphnia 0.72, 48 hours

Fish LC50 Fish 0.72, 96 hours

Ethyl phenyl(2,4,6-trimethylbenzoyl)phosphinate (CAS 84434-11-7)

Aquatic

Acute

Crustacea EC50 Daphnia 2.26, 48 hours

Fish LC50 Fish 1.89, 96 hours

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (CAS 5888-33-5)

Aquatic

Acute

Fish LC50 Fish 0.704, 96 hours

Isocyanatoacrylate

Aquatic

Acute

Crustacea EC50 Daphnia 58, 48 hours

Tosyl isocyanate (CAS 4083-64-1)

Aquatic

Acute

Crustacea EC50 Daphnia > 100 mg/l, 48 hours

Fish LC50 Fish > 45 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Partition coefficient

n-octanol/water (log Kow)

Camphene 4.22

n-butyl acetate 1.78

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Not available.
Contaminated packaging Not available.
EU waste code Not available.
Disposal methods/information Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
14.3. Transport hazard class(es)
Class 9
Subsidiary risk -
Label(s) 9
Hazard No. (ADR) 90
Tunnel restriction code E
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for user Not available.

These substances when carried in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 Kg or less for solids, are not subject to any other provisions of ADR provided the packagings meet the general provisions 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

RID

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
14.3. Transport hazard class(es)
Class 9
Subsidiary risk -
Label(s) 9
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for user Not available.

ADN

14.1. UN number UN3082
14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
14.3. Transport hazard class(es)
Class 9
Subsidiary risk -
Label(s) 9
14.4. Packing group III
14.5. Environmental hazards Yes
14.6. Special precautions for user Not available.

IATA

14.1. UN number UN3082
14.2. UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate)
14.3. Transport hazard class(es)
Class 9
Subsidiary risk -
14.4. Packing group III
14.5. Environmental hazards Yes
ERG Code 9L
14.6. Special precautions for user Not available.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

As per IATA S.P. A197: These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net weight per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

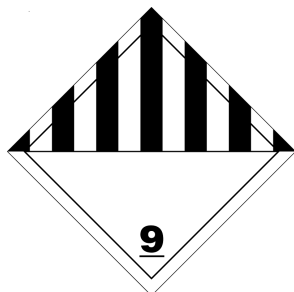
IMDG

14.1. UN number	UN3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), MARINE POLLUTANT
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
14.6. Special precautions for user	Not available.

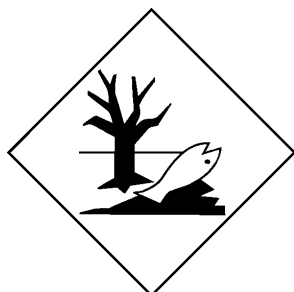
As per section 2.10.2.7 of IMDG Code: Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 Kg or less for solids are not subject to any other provisions of the IMDG Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In case of marine pollutants also meeting the criteria for inclusion in another hazard class, all provisions of the IMDG Code relevant to any additional hazards continue to apply.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

ADN; ADR; IATA; IMDG; RID



Marine pollutant



SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate (CAS 5888-33-5)

n-butyl acetate (CAS 123-86-4)

Tosyl isocyanate (CAS 4083-64-1)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization.

IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

MARPOL: International Convention for the Prevention of Pollution from Ships.

PBT: Persistent, bioaccumulative and toxic.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit.

TWA: Time Weighted Average.

vPvB: Very persistent and very bioaccumulative.

References

Not available.

Information on evaluation method leading to the classification of mixture

Not available.

Full text of any H-statements not written out in full under Sections 2 to 15

H226 Flammable liquid and vapor.

H228 Flammable solid.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

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.

Revision information

Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
GHS: Classification

Training information

Not available.

Disclaimer

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