

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 1A33 Aerosol

Registration number -

Synonyms None.

Product code Humiseal Europe 1A33 Aerosol

Issue date 17-June-2015

Version number 07

Revision date 20-September-2022

Supersedes date 26-July-2022

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

Identified uses Protective Coating for Printed Circuit Board

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

Physical hazards

Aerosols	Category 2	H223 - Flammable aerosol. H229 - Pressurized container: May burst if heated.
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Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Category 1	H372 - Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Category 1

H304 - May be fatal if swallowed and enters airways.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard

Category 2

H411 - Toxic to aquatic life with long lasting effects.

Hazard summary

Contents under pressure. Heat may cause the containers to explode. May be fatal if swallowed and enters airways. Causes damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness. Causes serious eye irritation. Causes skin irritation. 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:

Butanone, Dimethyl ether, Ethylbenzene, heptane; n-heptane, Toluene, Xylene

Hazard pictograms



Signal word

Danger

Hazard statements

- H223 Flammable aerosol.
- H229 Pressurized container: May burst if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P260 Do not breathe mist/vapours.
- P273 Avoid release to the environment.

Response

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
- P331 Do NOT induce vomiting.
- P391 Collect spillage.

Storage

- P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

Not available.

Supplemental label information

58.655625% by mass of the contents are flammable. 30 % of the mixture consists of component(s) of unknown acute oral toxicity. 38.65 % of the mixture consists of component(s) of unknown acute dermal toxicity. 5 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 47.96 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 47.96 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. EUH066 - Repeated exposure may cause skin dryness or cracking. EUH208 - Contains octhilonone (ISO);2-octyl-2H-isothiazol-3-one; [OIT]. 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
Dimethyl ether	30 - < 40	115-10-6 204-065-8	-	603-019-00-8	#

Classification: -

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
ACETONE	20 - < 30	67-64-1 200-662-2	01-2119471330-49-XXXX	606-001-00-8	#
Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336					
Xylene	10 - < 20	1330-20-7 215-535-7	-	601-022-00-9	#
Classification: Flam. Liq. 3;H226, Acute Tox. 4;H312, Acute Tox. 4;H332, Skin Irrit. 2;H315					
heptane; n-heptane	5 - < 10	142-82-5 205-563-8	-	601-008-00-2	#
Classification: Flam. Liq. 2;H225, Skin Irrit. 2;H315, STOT SE 3;H336, Asp. Tox. 1;H304, Aquatic Acute 1;H400, Aquatic Chronic 1;H410					
Butanone	1 - < 3	78-93-3 201-159-0	-	606-002-00-3	#
Classification: Flam. Liq. 2;H225, Eye Irrit. 2;H319, STOT SE 3;H336					
Ethylbenzene	1 - < 3	100-41-4 202-849-4	01-2119489370-35	601-023-00-4	#
Classification: Flam. Liq. 2;H225, Acute Tox. 4;H332, STOT RE 2;H373, Asp. Tox. 1;H304, Aquatic Chronic 3;H412					
Toluene	1 - < 3	108-88-3 203-625-9	01-2119471310-51	601-021-00-3	#
Classification: Flam. Liq. 2;H225, Skin Irrit. 2;H315, Repr. 2;H361d, STOT SE 3;H336, STOT RE 2;H373, Asp. Tox. 1;H304, Aquatic Chronic 3;H412					
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	< 0.3	68515-49-1 271-091-4	-	-	#
Classification: -					
octhilinone (ISO);2-octyl-2H-isothiazol-3-one; [OIT]	< 0.1	26530-20-1 247-761-7	-	613-112-00-5	
Classification: Acute Tox. 3;H311, Acute Tox. 3;H331, Eye Dam. 1;H318, Skin Sens. 1;H317, Aquatic Acute 1;H400, Aquatic Chronic 1;H410					

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.

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 centre or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. 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 Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

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 Flammable aerosol.

5.1. Extinguishing media	
Suitable extinguishing media	Alcohol resistant foam. Dry powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising from the substance or mixture	Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapour pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

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. Do not breathe mist/vapours. 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/vapours. Ventilate closed spaces before entering them. 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	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Prevent product from entering drains. 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.

6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling	Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not breathe mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from heat, sparks and open flame. This material can accumulate static charge which may cause spark and become an ignition source. 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
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (CAS 68515-49-1)	TWA	5 mg/m ³
ACETONE (CAS 67-64-1)	STEL	3620 mg/m ³
		1500 ppm
	TWA	1210 mg/m ³
		500 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Butanone (CAS 78-93-3)	STEL	899 mg/m3 300 ppm
	TWA	600 mg/m3 200 ppm
Dimethyl ether (CAS 115-10-6)	STEL	958 mg/m3 500 ppm
	TWA	766 mg/m3 400 ppm
Ethylbenzene (CAS 100-41-4)	STEL	552 mg/m3 125 ppm
	TWA	441 mg/m3 100 ppm
heptane; n-heptane (CAS 142-82-5)	TWA	2085 mg/m3 500 ppm
	STEL	384 mg/m3 100 ppm
Toluene (CAS 108-88-3)	TWA	191 mg/m3 50 ppm
	STEL	441 mg/m3 100 ppm
Xylene (CAS 1330-20-7)	TWA	220 mg/m3 50 ppm

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
ACETONE (CAS 67-64-1)	TWA	1210 mg/m3 500 ppm
Butanone (CAS 78-93-3)	STEL	900 mg/m3 300 ppm
	TWA	600 mg/m3 200 ppm
Dimethyl ether (CAS 115-10-6)	TWA	1920 mg/m3 1000 ppm
	STEL	884 mg/m3 200 ppm
Ethylbenzene (CAS 100-41-4)	TWA	442 mg/m3 100 ppm
	TWA	2085 mg/m3 500 ppm
Toluene (CAS 108-88-3)	STEL	384 mg/m3 100 ppm
	TWA	192 mg/m3 50 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3 100 ppm
	TWA	221 mg/m3 50 ppm

Biological limit values

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling Time
Butanone (CAS 78-93-3)	70 µmol/l	Butan-2-one	Urine	*
Xylene (CAS 1330-20-7)	650 mmol/mol	Methyl hippuric acid	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.

Exposure guidelines

UK EH40 WEL: Skin designation

Butanone (CAS 78-93-3)	Can be absorbed through the skin.
Ethylbenzene (CAS 100-41-4)	Can be absorbed through the skin.
Toluene (CAS 108-88-3)	Can be absorbed through the skin.
Xylene (CAS 1330-20-7)	Can be absorbed through the skin.

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 vapour cartridge and full facepiece.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

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

Thermal hazards Not applicable.

Hygiene measures When using do not smoke. 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.

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 Aerosol.

Colour Not available.

Odour Not available.

Odour threshold Not available.

pH Does not apply.

Melting point/freezing point -141.5 °C (-222.7 °F) estimated

Initial boiling point and boiling range -24.82 °C (-12.68 °F) estimated

Flash point < -9.0 °C (< 15.8 °F)

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)	1 % estimated
Explosive limit – upper (%)	27 % estimated

Vapour pressure 2317.41 hPa estimated

Vapour density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Negligible

Solubility (other) Not available.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature 285 °C (545 °F) estimated

Decomposition temperature Not available.

Viscosity Not available.

Explosive properties Not explosive.

Oxidising properties Not oxidising.

9.2. Other information

Density 0.79 g/cm³ estimated

Heat of combustion (NFPA 30B) 24.84 kJ/g estimated

Miscible (water) Negligible

Percent volatile 90 - 93 % v/v

Specific gravity 0.79 estimated

VOC 462 g/l

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 oxidising 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 drowsiness or dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.

Eye contact Causes serious eye irritation.

Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms Aspiration may cause pulmonary oedema and pneumonitis. May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Product	Species	Test Results
HumiSeal 1A33 Aerosol		
Acute		
Dermal		
LD50	Rabbit	55710 mg/kg
Inhalation		
LC50	Rat	179 mg/l, 8 Hours
Oral		
LD50	Rat	10840 mg/kg

Components	Species	Test Results
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (CAS 68515-49-1)		
Acute		
Dermal		
LD50	Rabbit	> 3160 mg/kg
Inhalation		
LC50	Rat	> 12.54 mg/l, 4 Hours
Butanone (CAS 78-93-3)		
Acute		
Dermal		
LD50	Rabbit	8054 mg/kg
Inhalation		
<i>Vapour</i>		
LC50	Rat	34 mg/l, 4 hours
Oral		
LD50	Rat	2193 mg/kg 2054 mg/kg
Dimethyl ether (CAS 115-10-6)		
Acute		
Inhalation		
<i>Gas</i>		
LC50	Rat	164000 ppm, 4 Hours
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	15400 mg/kg
Inhalation		
<i>Vapour</i>		
LC50	Rat	17.63 mg/l, 4 hours
Oral		
LD50	Rat	3500 mg/kg
heptane; n-heptane (CAS 142-82-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
<i>Vapour</i>		
LC50	Rat	> 29.29 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
<i>Vapour</i>		
LC50	Rat	> 20 mg/l, 4 hours
LC50	Rat	12.5 - 28.8 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Xylene (CAS 1330-20-7)		
Acute		
Oral		
LD50	Rat	3523 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	

Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	Due to partial or complete lack of data the classification is not possible.
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.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	No information available.
Other information	May cause allergic respiratory and skin reactions.

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects.

Product	Species		Test Results
HumiSeal 1A33 Aerosol			
Aquatic			
Crustacea	EC50	Daphnia	467.1338, 48 hours
Fish	LC50	Fish	323.3096, 96 hours
<i>Acute</i>			
Crustacea	EC50	Daphnia	1.6303, 48 hours estimated
Fish	LC50	Fish	8.264, 96 hours estimated
Components	Species		Test Results
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (CAS 68515-49-1)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	> 0.02 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	> 0.37 mg/l, 96 hours
ACETONE (CAS 67-64-1)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia magna)	>= 10294 - <= 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	>= 4740 - <= 6330 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia	1.8, 48 hours
Fish	LC50	Fish	4.2, 96 hours
heptane; n-heptane (CAS 142-82-5)			
Aquatic			
<i>Acute</i>			
Fish	LC50	Mozambique tilapia (Tilapia mossambica)	375, 96 hours
Toluene (CAS 108-88-3)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Invertebrates (Invertebrates)	3.78, 48 hours
Fish	LC50	Fish	5.5, 96 hours

Components	Species	Test Results
Xylene (CAS 1330-20-7)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		>= 6.702 - <= 10.032 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)		
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (CAS 68515-49-1)		10.36
ACETONE (CAS 67-64-1)		-0.24
Butanone (CAS 78-93-3)		0.29
Dimethyl ether (CAS 115-10-6)		0.1
Ethylbenzene (CAS 100-41-4)		3.15
heptane; n-heptane (CAS 142-82-5)		4.66
Toluene (CAS 108-88-3)		2.73
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.	
Substance Global Warming Potential per (Annex IV), Regulation 517/2014/EU on fluorinated greenhouse gases, as amended		
Dimethyl ether (CAS 115-10-6)		1

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Not available.
Contaminated packaging	Do not re-use empty containers.
EU waste code	Not available.
Disposal methods/information	Contents under pressure. Do not puncture, incinerate or crush. 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	UN1950
14.2. UN proper shipping name	AEROSOLS, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
Hazard No. (ADR)	Not available.
Tunnel restriction code	D
14.4. Packing group	Not available.
14.5. Environmental hazards	No.
14.6. Special precautions for user	Not available.

RID

14.1. UN number	UN1950
14.2. UN proper shipping name	AEROSOLS, flammable
14.3. Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	2.1
14.4. Packing group	Not available.
14.5. Environmental hazards	No.

14.6. Special precautions for user Not available.

ADN

14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, [flammable]
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
14.4. Packing group Not available.
14.5. Environmental hazards No.
14.6. Special precautions for user Not available.

IATA

14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
14.4. Packing group Not available.
14.5. Environmental hazards No.
ERG Code 10L
14.6. Special precautions for user Not available.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

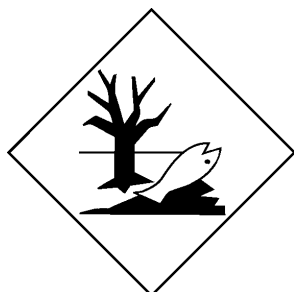
IMDG

14.1. UN number UN1950
14.2. UN proper shipping name AEROSOLS, MARINE POLLUTANT
14.3. Transport hazard class(es)
Class 2
Subsidiary risk -
14.4. Packing group Not available.
14.5. Environmental hazards
Marine pollutant Yes
EmS F-D, S-U
14.6. Special precautions for user Not available.

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

ADN; ADR; IATA; IMDG; RID





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

ACETONE (CAS 67-64-1)

Ethylbenzene (CAS 100-41-4)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

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

Not listed.

Authorisations

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

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (CAS 68515-49-1)

ACETONE (CAS 67-64-1)

Butanone (CAS 78-93-3)

Dimethyl ether (CAS 115-10-6)

Ethylbenzene (CAS 100-41-4)

heptane; n-heptane (CAS 142-82-5)

Toluene (CAS 108-88-3)

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

ACETONE (CAS 67-64-1)

Butanone (CAS 78-93-3)

Dimethyl ether (CAS 115-10-6)

Ethylbenzene (CAS 100-41-4)

heptane; n-heptane (CAS 142-82-5)

octhilonone (ISO);2-octyl-2H-isothiazol-3-one; [OIT] (CAS 26530-20-1)

Toluene (CAS 108-88-3)

Xylene (CAS 1330-20-7)

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

Not available.

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

H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
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.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very 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
SECTION 2: Hazards identification: Hazard summary
SECTION 2: Hazards identification: Specific hazards
SECTION 4: First aid measures: Inhalation
SECTION 4: First aid measures: 4.3. Indication of any immediate medical attention and special treatment needed
SECTION 4: First aid measures: General information
Physical & Chemical Properties: Multiple Properties
SECTION 11: Toxicological information: Acute toxicity
SECTION 11: Toxicological information: Inhalation

Training information

Not available.

Disclaimer

The information offered in this data sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication, however, no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. This material is intended for industrial use only. No warranty, expressed or implied is made.