

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

## SAFETY DATA SHEET

ESB-587 Noir Orbital P FXK ADPL

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

#### 1.1 Product identifier

**Product name** : ESB-587 Noir Orbital P FXK ADPL  
**SDS code** : 065232  
**UFI** : PH5Q-W0K5-N00A-VTSD

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

Identified uses
Industrial use
Uses advised against
All other uses

**Product use** : FOR INDUSTRIAL USE ONLY

#### 1.3 Details of the supplier of the safety data sheet

Akzo Nobel Coatings S.L.U.  
Feixa Llarga 14-20 (Zona Franca)  
08040 Barcelona  
Spain

**e-mail address of person responsible for this SDS** : PSRA\_SSH@akzonobel.com

#### Supplier

**Telephone number** : + 31 (0)71 308 6944  
**Hours of operation** : 24 hours

### 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]

Flam. Liq. 2, H225  
Skin Irrit. 2, H315  
Eye Dam. 1, H318  
STOT SE 3, H336  
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	: Danger
Hazard statements	: Highly flammable liquid and vapor. Causes skin irritation. Causes serious eye damage. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.
<b>Precautionary statements</b>	
Prevention	: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling.
Response	: IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Storage	: Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national or international regulations.
Hazardous ingredients	: n-butyl acetate butan-1-ol
Supplemental label elements	: Contains Formaldehyde, solution. May produce an allergic reaction.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
<b>Special packaging requirements</b>	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥25 - ≤50	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	-	[1] [2]
Reaction mass of ethylbenzene and xylene	REACH #: 01-2119488216-32 EC: 905-588-0 Index: 601-022-00-9	≤9.5	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (gases)] = 5000 ppm	[1] [2]
hydrocarbons, C9, aromatics (<0.1% cumene)	EC: 918-668-5 CAS: 128601-23-0	≤6.2	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1]
butan-1-ol	REACH #: 01-2119484630-38 EC: 200-751-6 CAS: 71-36-3 Index: 603-004-00-6	≤4.1	Flam. Liq. 3, H226 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	ATE [Oral] = 500 mg/kg	[1]
2-butoxyethyl acetate	REACH #: 01-2119475112-47 EC: 203-933-3 CAS: 112-07-2 Index: 607-038-00-2	≤5	Acute Tox. 4, H312 Acute Tox. 4, H332	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde, isobutylated methylated	CAS: 68955-24-8	≤3	Aquatic Chronic 2, H411	-	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≤3	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7	≤1	Flam. Liq. 3, H226	-	[1] [2]
Formaldehyde, solution	REACH #:	<0.1	Acute Tox. 3, H301	ATE [Oral] = 100	[1] [2]

SECTION 3: Composition/information on ingredients					
	01-2119488953-20 EC: 200-001-8 CAS: 50-00-0 Index: 605-001-00-5		Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335	mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 3 mg/l Skin Corr. 1B, H314: C ≥ 25% Skin Irrit. 2, H315: 5% ≤ C < 25% Eye Dam. 1, H318: C ≥ 25% Eye Irrit. 2, H319: 5% ≤ C < 25% Skin Sens. 1, H317: C ≥ 0.2% STOT SE 3, H335: C ≥ 5%	
			See Section 16 for the full text of the H statements declared above.		

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

Type

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of 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. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion

: Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Formaldehyde, solution. May produce an allergic reaction.

Over-exposure signs/symptoms

- Eye contact

: Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation

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

: Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion

: Adverse symptoms may include the following:  
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments

: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized 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 spilled 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 materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

SECTION 6: Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach 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 spilled 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). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Ensure spraying away from persons. Avoid inhalation of vapor, spray or mist. 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 a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria		
Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

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

Product/ingredient name	Exposure limit values
n-butyl acetate	<b>EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values</b> STEL: 150 ppm 15 minutes. STEL: 723 mg/m³ 15 minutes. TWA: 241 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Reaction mass of ethylbenzene and xylene	<b>EU OEL (Europe, 10/2019). Absorbed through skin. Notes: list of indicative occupational exposure limit values</b> STEL: 442 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 221 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
2-butoxyethyl acetate	<b>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values</b> TWA: 20 ppm 8 hours. TWA: 133 mg/m³ 8 hours. STEL: 50 ppm 15 minutes. STEL: 333 mg/m³ 15 minutes.
1-methoxy-2-propanol	<b>EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values</b> STEL: 568 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 375 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
2-methoxy-1-methylethyl acetate	<b>EU OEL (Europe, 2/2017). Absorbed through skin. Notes: list of indicative occupational exposure limit values</b> STEL: 550 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 275 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
Formaldehyde, solution	<b>EU OEL (Europe, 1/2022). Skin sensitizer.</b> STEL: 0.6 ppm 15 minutes. STEL: 0.74 mg/m³ 15 minutes. TWA: 0.62 ppm 8 hours. TWA: 0.5 mg/m³ 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

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
n-butyl acetate	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.4 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	11 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	12 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	35.7 mg/m³	General population	Local
	DNEL	Long term Inhalation	48 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	300 mg/m³	General population	Local
	DNEL	Short term Inhalation	300 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	300 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	Workers	Local
	DNEL	Short term Inhalation	600 mg/m³	Workers	Systemic
	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
Reaction mass of ethylbenzene and xylene	DNEL	Long term Inhalation	14.8 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	77 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	108 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	289 mg/m³	Workers	Local
	DNEL	Short term Inhalation	289 mg/m³	Workers	Systemic
butan-1-ol	DNEL	Long term Oral	1.5625 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	55.357 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	155 mg/m³	General population	Local
	DNEL	Long term Inhalation	310 mg/m³	Workers	Local
2-butoxyethyl acetate	DNEL	Long term Oral	8.6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	72 mg/kg bw/day	General population	Systemic

SECTION 8: Exposure controls/personal protection

1-methoxy-2-propanol	DNEL	Long term Inhalation	80 mg/m³	General population	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	120 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	133 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	169 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	200 mg/m³	General population	Local
	DNEL	Short term Inhalation	333 mg/m³	Workers	Local
	DNEL	Long term Oral	33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	43.9 mg/m³	General population	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	369 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Local
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Systemic
Formaldehyde, solution	DNEL	Long term Dermal	0.012 mg/cm²	General population	Local
	DNEL	Long term Dermal	0.037 mg/cm²	Workers	Local
	DNEL	Long term Inhalation	0.1 mg/m³	General population	Local
	DNEL	Long term Inhalation	0.375 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.75 mg/m³	Workers	Local
	DNEL	Long term Inhalation	3.2 mg/m³	General population	Systemic
	DNEL	Long term Oral	4.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	9 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	102 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	240 mg/kg bw/day	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
vinyl acetate	Fresh water	0.016 mg/l	Assessment Factors
	Marine water	0.002 mg/l	Assessment Factors
	Sewage Treatment Plant	6 mg/l	Assessment Factors
	Fresh water sediment	0.067 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0.007 mg/kg dwt	Equilibrium Partitioning
	Soil	0.004 mg/kg dwt	Equilibrium Partitioning

SECTION 8: Exposure controls/personal protection

8.2 Exposure controls

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton ® or Nitrile, thickness ≥ 0.38 mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness ≥ 0.12 mm. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

- 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.

SECTION 8: Exposure controls/personal protection

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

**Physical state** : Liquid.  
**Color** : Black.  
**Odor** : Typical.  
**Odor threshold** : Not available.  
**Melting point/freezing point** : Not available.  
**Boiling point, initial boiling point, and boiling range** : 45°C (113°F)  
**Flammability** : Not available.  
**Lower and upper explosion limit** : Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)  
**Flash point** : Closed cup: 21°C (69.8°F) [Pensky-Martens]  
**Auto-ignition temperature** :

Ingredient name	°C	°F	Method
1-methoxy-2-propanol	270	518	
2-(2-butoxyethoxy)ethyl acetate	290	554	
2-butoxyethyl acetate	340	644	

**Decomposition temperature** : Not available.  
**pH** : Not applicable. [DIN EN 1262]  
**Viscosity** : Kinematic: 314 mm²/s [DIN EN ISO 3219]  
**Solubility(ies)** :  
Not available.

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

**Vapor pressure** :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
n-butyl acetate	11.25	1.5	DIN EN 13016-2			
1-methoxy-2-propanol	8.5	1.1				
butan-1-ol	<7.5	<1	DIN EN 13016-2			

**Relative density** : 0.948 [ISO 8130-2/-3]  
**Vapor density** : Not available.

Particle characteristics

**Median particle size** : Not applicable.  
**Percentage of particles with aerodynamic diameter ≤ 10 µm** : 0

SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- 10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials
- 10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains Formaldehyde, solution. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-butyl acetate	LC50 Inhalation Gas.	Rat	390 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	6 g/m³	2 hours
	LC50 Inhalation Vapor	Rat	390 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Oral	Guinea pig	4700 mg/kg	-
	LD50 Oral	Mouse	6 g/kg	-
	LD50 Oral	Rabbit	3200 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Reaction mass of ethylbenzene and xylene butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Intraperitoneal	Mouse	254 mg/kg	-
	LD50 Intraperitoneal	Rat	200 mg/kg	-

SECTION 11: Toxicological information

2-butoxyethyl acetate	LD50 Intravenous	Mouse	377 mg/kg	-
	LD50 Intravenous	Rat	310 mg/kg	-
	LD50 Oral	Mouse	100 mg/kg	-
	LD50 Oral	Rabbit	3484 mg/kg	-
	LD50 Oral	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	0.79 g/kg	-
	LD50 Oral	Rat	4.36 g/kg	-
	LD50 Oral	Rat	790 mg/kg	-
	LD50 Subcutaneous	Mouse	3200 mg/kg	-
	LD50 Dermal	Rabbit	1500 mg/kg	-
1-methoxy-2-propanol	LD50 Oral	Mouse	3200 mg/kg	-
	LD50 Oral	Rat	2400 mg/kg	-
	LC50 Inhalation Gas.	Rat	10000 ppm	5 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Intraperitoneal	Rat	3720 mg/kg	-
	LD50 Intravenous	Mouse	5300 mg/kg	-
	LD50 Intravenous	Rabbit	1200 mg/kg	-
	LD50 Intravenous	Rat	4200 mg/kg	-
	LD50 Oral	Mouse	11700 mg/kg	-
	LD50 Oral	Rabbit	5700 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Oral	Rat	6600 mg/kg	-
	LD50 Subcutaneous	Rabbit	5 g/kg	-
	LD50 Subcutaneous	Rat	7800 mg/kg	-
	LD50 Dermal	Rabbit	6 g/kg	-
	LD50 Intraperitoneal	Mouse	750 mg/kg	-
	LD50 Intraperitoneal	Mouse	1501 mg/kg	-
	LD50 Oral	Mouse	5001 mg/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
	LD50 Oral	Rat	9000 mg/kg	-
	LC50 Inhalation Gas.	Rat	815 ppm	0.5 hours
Formaldehyde, solution	LC50 Inhalation Gas.	Rat	250 ppm	2 hours
	LC50 Inhalation Gas.	Rat	250 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	505 mg/m³	2 hours
	LC50 Inhalation Vapor	Mouse	454 mg/m³	4 hours
	LC50 Inhalation Vapor	Rat	578 mg/m³	2 hours
	LD50 Dermal	Rabbit	270 mg/kg	-
	LD50 Dermal	Rabbit	270 uL/kg	-
	LD50 Intravenous	Rat	87 mg/kg	-
	LD50 Oral	Guinea pig	260 mg/kg	-
	LD50 Oral	Mouse	42 mg/kg	-
	LD50 Oral	Mouse	385 mg/kg	-
	LD50 Oral	Mouse	500 mg/kg	-
	LD50 Oral	Rat	100 mg/kg	-
	LD50 Oral	Rat	500 mg/kg	-
	LD50 Subcutaneous	Mouse	300 mg/kg	-
	LD50 Subcutaneous	Mouse	300 mg/kg	-
	LD50 Subcutaneous	Rat	0.42 g/kg	-
	LD50 Subcutaneous	Rat	420 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Product as-supplied	13309.7	9448.9	58674.6	352.6	N/A
Reaction mass of ethylbenzene and xylene	N/A	1100	5000	N/A	N/A
butan-1-ol	500	N/A	N/A	N/A	N/A
2-butoxyethyl acetate	N/A	1100	N/A	11	N/A
Formaldehyde, solution	100	300	N/A	3	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-butyl acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Reaction mass of ethylbenzene and xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 UI	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 MI	-
	Eyes - Severe irritant	Rabbit	-	1.62 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
2-butoxyethyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
1-methoxy-2-propanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Formaldehyde, solution	Eyes - Severe irritant	Rabbit	-	10 mg	-
	Eyes - Severe irritant	Rabbit	-	37 %	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Eyes - Severe irritant	Rabbit	-	750 ug	-
	Skin - Mild irritant	Rabbit	-	540 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 50 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-

Conclusion/Summary : Not available.

Sensitization

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

SECTION 11: Toxicological information

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects
Reaction mass of ethylbenzene and xylene	Category 3	-	Respiratory tract irritation
hydrocarbons, C9, aromatics (<0.1% cumene)	Category 3	-	Respiratory tract irritation
butan-1-ol	Category 3	-	Narcotic effects
	Category 3	-	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	-	Narcotic effects
Formaldehyde, solution	Category 3	-	Narcotic effects
			Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Reaction mass of ethylbenzene and xylene	Category 2	-	-

Aspiration hazard

Product/ingredient name	Result
Reaction mass of ethylbenzene and xylene	ASPIRATION HAZARD - Category 1
hydrocarbons, C9, aromatics (<0.1% cumene)	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact : Causes serious eye damage.
- Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact : Causes skin irritation.
- Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness
- Skin contact : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion : Adverse symptoms may include the following:  
stomach pains

SECTION 11: Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

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.

11.2.2 Other information

No additional information.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
n-butyl acetate	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 62000 µg/l Fresh water	Fish - Danio rerio	96 hours
	Acute LC50 100000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 185000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Reaction mass of ethylbenzene and xylene butan-1-ol	Acute EC50 1983 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2300000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
	Acute LC50 1910000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 1940000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Formaldehyde, solution	Acute LC50 1730000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 3.48 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 3.54 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours

SECTION 12: Ecological information

Acute EC50 3.05 mg/l Marine water	Algae - Isochrysis galbana - Exponential growth phase	96 hours
Acute EC50 3.29 mg/l Marine water	Algae - Phaeodactylum tricornutum - Exponential growth phase	96 hours
Acute EC50 0.788 mg/l Marine water	Algae - Ulva pertusa	96 hours
Acute EC50 12.98 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Acute EC50 12.98 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Acute EC50 10.14 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Acute EC50 3.26 mg/l Fresh water	Daphnia - Daphnia magna - Embryo	48 hours
Acute EC50 14.6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
Acute EC50 14000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
Acute EC50 5800 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
Acute LC50 1170 µl/L Marine water	Crustaceans - Artemia sp.	48 hours
Acute LC50 1265 µl/L Marine water	Crustaceans - Artemia sp.	48 hours
Acute LC50 1299 µl/L Marine water	Crustaceans - Artemia sp.	48 hours
Acute LC50 1.79 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
Acute LC50 1.51 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
Acute LC50 4960 µg/l Fresh water	Fish - Morone saxatilis - Fingerling	96 hours
Acute LC50 2.24 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Acute LC50 1.41 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
Chronic NOEC 0.005 mg/l Marine water	Algae - Isochrysis galbana - Exponential growth phase	96 hours
Chronic NOEC 1000 µg/l Marine water	Algae - Phyllospora comosa - Embryo	96 hours
Chronic NOEC 0.438 mg/l Marine water	Algae - Ulva pertusa	96 hours
Chronic NOEC 953.9 ppm Fresh water	Fish - Oncorhynchus tshawytscha - Egg	43 days
Chronic NOEC 1.56 mg/l Fresh water	Fish - Oreochromis niloticus - Fingerling	12 weeks

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
n-butyl acetate	2.3	-	low
Reaction mass of ethylbenzene and xylene	3.12	8.1 to 25.9	low
butan-1-ol	1	-	low
2-butoxyethyl acetate	1.51	-	low
1-methoxy-2-propanol	<1	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Mobility : Not available.

SECTION 12: Ecological information

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. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.
- Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

European waste catalogue (EWC)




The European Waste Catalogue classification of this product, when disposed of as waste, is:

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

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
- 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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

Additional information

- ADR/RID

: **Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 450 L.  
**Tunnel code** (D/E)
- IMDG

: **Emergency schedules** F-E, \_S-E\_  
**Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 450 L.
- IATA

: **Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 30 L (100 L for cargo aircraft). Transport in accordance with this provision must be noted on the Shipper's Declaration.

- 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 Maritime transport in bulk according to IMO instruments

: Not applicable.

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 authorization**  
**Annex XIV**

None of the components are listed.

**Substances of very high concern**  
None of the components are listed.

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

**Other EU regulations**

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SECTION 15: Regulatory information

**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** : Not available.

**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/EU)**  
Not listed.

**Prior Informed Consent (PIC) (649/2012/EU)**  
Not listed.

**Persistent Organic Pollutants**  
Not listed.

**Seveso Directive**  
This product is controlled under the Seveso Directive.

**Danger criteria**

Category
P5c

**National regulations**

**Biocidal products regulation**

**International regulations**

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

Not listed.

**Montreal Protocol**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Informed Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

**15.2 Chemical Safety Assessment** : No Chemical Safety Assessment has been carried out.

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
Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 Aquatic Chronic 3, H412	On basis of test data Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H225 H226 H301 H302 H304 H311 H312 H314 H315 H317 H318 H319 H331 H332 H335 H336 H341 H350 H373  H411 H412 EUH066	Highly flammable liquid and vapor. Flammable liquid and vapor. Toxic if swallowed. Harmful if swallowed. May be fatal if swallowed and enters airways. Toxic in contact with skin. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. Toxic if inhaled. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure.  Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. Repeated exposure may cause skin dryness or cracking.
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Full text of classifications [CLP/GHS]

Acute Tox. 3 Acute Tox. 4 Aquatic Chronic 2 Aquatic Chronic 3 Asp. Tox. 1 Carc. 1B Eye Dam. 1 Eye Irrit. 2 Flam. Liq. 2 Flam. Liq. 3 Muta. 2	ACUTE TOXICITY - Category 3 ACUTE TOXICITY - Category 4 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3 ASPIRATION HAZARD - Category 1 CARCINOGENICITY - Category 1B SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 GERM CELL MUTAGENICITY - Category 2
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SECTION 16: Other information

Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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**Notice to reader**

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