SILOXA© FRAME CLEANER

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE

1.1 Product Identifier : UPVCSC12SILOXA
Product name : Siloxa Solvent Frame Cleaner

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Cleaning agent.

1.3 Details of the supplier of the safety data sheet

Siloxa Building Chemicals
The Office
Three Pillars Business Park
Sutton-in-the-Isle
Cambridgeshire
CB6 2RU

1.3 Emergency telephone: 07970287971

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards Flam. Liq. 2 - H225
Health hazards STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304
Environmental hazards Aquatic Chronic 2 - H411.

2.2 Label Elements
Pictogram

Signal word Danger

Hazard statements
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P331 Do NOT induce vomiting.
P403+P235 Store in a well-ventilated place. Keep cool.

Supplemental label Information EUH066 Repeated exposure may cause skin dryness or cracking.

Contains HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS, BUTYL ACETATE -norm, HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

2.3 Other Hazards

This product does not contain any substances classified as PBT or vPvB. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapours may form explosive mixtures with air.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

No information provided

3.2 Mixtures

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS **30-60%**

CAS number: — EC number: 920-750-0 REACH registration number: 01-2119473851-33-XXXX

Classification
Flam. Liq. 2 - H225
STOT SE 3 - H336
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

BUTYL ACETATE -norm **10-30%**

CAS number: 123-86-4 EC number: 204-658-1 REACH registration number: 01-2119485493-29-XXXX

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H336

ETHANOL **10-30%**
CAS number: 64-17-5 EC number: 200-578-6 REACH registration number: 01-2119457610-43-XXXX

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2 - H319

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%) **5-10%**

CAS number: – EC number: 919-446-0 REACH registration number: 01-2119458049-33-XXXX

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H336
STOT RE 1 - H372
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

2-BUTOXYETHANOL **5-10%**

CAS number: 111-76-2 EC number: 203-905-0 REACH registration number: 01-2119475108-36-XXXX

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319

METHANOL **<1%**

CAS number: 67-56-1 EC number: 200-659-6 REACH registration number: 01-2119433307-44-XXXX

Classification
Flam. Liq. 2 - H225
Acute Tox. 3 - H301
Acute Tox. 3 - H311
Acute Tox. 3 - H331
STOT SE 1 - H370

The full text for all hazard statements is displayed in Section 16.

Composition comments the data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation Move affected person to fresh air at once. Get medical attention.

Ingestion Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.

4.2 Most Important symptoms and effects, both acute and delayed

General information May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

Inhalation May cause drowsiness or dizziness.

Ingestion May be fatal if swallowed and enters airways.

Skin contact Repeated exposure may cause skin dryness or cracking.

Eye contact May cause temporary eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically. Effects may be delayed.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing Media Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

Specific hazards Highly flammable liquid and vapour. Vapours may form explosive mixtures with air. Containers can burst violently or explode when heated, due to excessive pressure build-up. Vapours are heavier than air and may spread near ground and travel a

	considerable distance to a source of ignition and flash back. Toxic to aquatic life with long lasting effects.
Hazardous combustion Products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3 Advice for firefighters

Protective actions during firefighting	Avoid the spillage or runoff entering drains, sewers or watercourses**.** Contain and collect extinguishing water. Use water to keep fire exposed containers cool and disperse vapours.
Special protective equipment for **firefighters**	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Approach the spillage from upwind. Keep unnecessary and unprotected personnel away from the spillage. No action shall be taken without appropriate training or involving any personal risk. Take precautionary measures against static discharges. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Use only non-sparking tools. Use explosion-proof electrical equipment.

6.2 Environmental precautions Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Fire-water run-off in sewers may create fire or explosion hazard.

6.3 Methods and material for containment and cleaning up

Avoid the spillage or runoff entering drains, sewers or watercourses. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4 Reference to other sections

Reference to other sections For personal protection,see Section 8.For waste disposal, see section 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Usage precautions	Avoid inhalation of vapours and contact with skin and eyes. Keep away from heat, sparks and open flame. Ground/bond container and receiving equipment. Take precautionary measures against static discharges. Use only non-sparking tools. Use explosion-proof electrical equipment. Avoid the formation of mists. Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back
Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas. Take off immediately all contaminated clothing and wash it before reuse. Wash after use and before eating, smoking and using the toile

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid exposure to high temperatures or direct sunlight. Storage tanks and other containers must be earthed. Use explosion-proof electrical equipment. Avoid contact with the following materials: Oxidising agents. Alkalis. Acids.
Storage class	Flammable liquid storage

7.3 Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

BUTYL ACETATE -norm

Long-term exposure limit (8-hour TWA): WEL 150 ppm 724 mg/m³ Short-term exposure limit (15-minute): WEL 200 ppm 966 mg/m³

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³

2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m³ Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m³ Sk

METHANOL

Sk

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m³ Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m³

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Sk = Can be absorbed through skin.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Ingredient comments	No exposure limits known for ingredient(s).
DNEL	Industry - Dermal; : 773 mg/kg/day Industry - Inhalation; : 2035 mg/m³ Consumer - Dermal; : 699 mg/kg/day Consumer - Inhalation; : 608 mg/m³ Consumer - Oral; Long term : 699 mg/kg/day

BUTYL ACETATE -norm (CAS: 123-86-4)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Workers - Inhalation; Long term systemic effects: 300 mg/m³ Workers - Inhalation; Short term systemic effects: 600 mg/m³ Workers - Inhalation; Long term local effects: 300 mg/m³ Workers - Inhalation; Short term local effects: 600 mg/m³ Workers - Dermal; Long term systemic effects: 11 mg/kg/day Workers - Dermal; Short term systemic effects: 11 mg/kg/day General population - Inhalation; Long term systemic effects: 35.7 mg/m³ General population - Inhalation; Short term systemic effects: 300 mg/m³ General population - Inhalation; Long term local effects: 35.7 mg/m³ General population - Inhalation; Short term local effects: 300 mg/m³ General population - Dermal; Long term systemic effects: 6 mg/kg/day General population - Dermal; Short term systemic effects: 6 mg/kg/day General population - Oral; Long term systemic effects: 2 mg/kg/day General population - Oral; Short term systemic effects: 2 mg/kg/day
PNEC	- Fresh water; 0.18 mg/l - Marine water; 0.018 mg/l - Intermittent release; 0.36 mg/l - STP; 35.6 mg/l - Sediment (Freshwater); 0.981 mg/kg - Sediment (Marinewater); 0.0981 mg/kg - Soil; 0.0903 mg/kg

ETHANOL (CAS: 64-17-5)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Workers - Inhalation; Long term systemic effects: 950 mg/m³ Workers - Inhalation; Short term local effects: 1900 mg/m³

Workers - Dermal; Long term systemic effects: 343 mg/kg/day
General population - Inhalation; Long term systemic effects: 114 mg/m³ General population - Inhalation; Short term local effects: 950 mg/m³ General population - Dermal; Long term systemic effects: 206 mg/kg/day General population - Oral; Long term systemic effects: 87 mg/kg/day

PNEC

- Fresh water; 0.96 mg/l
- Marine water; 0.79 mg/l
- Intermittent release; 2.75 mg/l
- STP; 580 mg/l
- Sediment (Freshwater); 3.6 mg/kg
- Sediment (Marinewater); 2.9 mg/kg
- Soil; 0.63 mg/kg

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

DNEL

Industry - Dermal; : 44 mg/kg/day
Industry - Inhalation; : 330 mg/kg/day
Consumer - Dermal; : 26 mg/kg/day
Consumer - Inhalation; : 71 mg/m³
Consumer - Oral; : 26 mg/kg/day

2-BUTOXYETHANOL (CAS: 111-76-2)

Ingredient comments

WEL = Workplace Exposure Limits

DNEL

Industry - Dermal; Short term systemic effects: 89 mg/kg/day
Industry - Inhalation; Short term systemic effects: 1091 mg/m³
Industry - Inhalation; Short term local effects: 246 mg/m³
Industry - Dermal; Long term systemic effects: 125 mg/kg/day
Industry - Inhalation; Long term systemic effects: 98 mg/m³
Consumer - Inhalation; Short term systemic effects: 426 mg/m³ Consumer - Oral; Short term systemic effects: 26.7 mg/kg/day
Consumer - Dermal; Short term systemic effects: 89 mg/kg/day Consumer - Dermal; Long term systemic effects: 75 mg/kg/day
Consumer - Inhalation; Long term local effects: 147 mg/m³
Consumer - Inhalation; Long term systemic effects: 59 mg/m³
Consumer - Oral; Long term systemic effects: 6.3 mg/kg/day

PNEC

- Fresh water; 8.8 mg/l
- Marine water; 0.88 mg/l
- Sediment (Freshwater); 8.14 mg/kg
- Sediment (Marinewater); 3.46 mg/kg
- Soil; 2.8 mg/kg
- STP; 463 mg/

METHANOL (CAS: 67-56-1)

DNEL

Workers - Inhalation; Long term systemic effects: 260 mg/m³
Workers - Inhalation; Short term systemic effects: 260 mg/m³
Workers - Inhalation; Long term local effects: 260 mg/m³
Workers - Inhalation; Short term local effects: 260 mg/m³
Workers - Dermal; Long term systemic effects: 40 mg/m³
Workers - Dermal; Long term systemic effects: 40 mg/kg/day
General population - Inhalation; Long term systemic effects: 50 mg/m³
General population - Inhalation; Short term systemic effects: 50 mg/m³
General population - Inhalation; Long term local effects: 50 mg/m³
General population - Inhalation; Short term local effects: 50 mg/m³
General population - Dermal; Long term systemic effects: 8 mg/kg/day
General population - Dermal; Short term systemic effects: 8 mg/kg/day
General population - Oral; Long term systemic effects: 8 mg/kg/day
General population - Oral; Short term systemic effects: 8 mg/kg/day

DMEL

Workers - Dermal; Long term systemic effects: 40 mg/kg/day

PNEC	- Fresh water; 20.8 mg/l - Marine water; 2.08 mg/l - Intermittent release; 1540 mg/l - STP; 100 mg/l - Sediment (Freshwater); 77 mg/kg - Sediment (Marinewater); 7.7 mg/kg - Soil; 100 mg

8.2 Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate general and local exhaust ventilation. Use explosion-proof electrical equipment. Observe any occupational exposure limits for the product or ingredients.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination. Wear anti- static protective clothing if there is a risk of ignition from static electricity.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Gas filter, type A2. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.
Hygiene measures	When using do not eat, drink or smoke. Wash after use and before eating, smoking and using the toilet. Take off immediately all contaminated clothing and wash it before reuse. Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid**.**
Colour	No information available.
Odour	Hydrocarbons**.**
Odour threshold	No information available.
pH	No information available.
Melting point	No information available**.**
Initial boiling point and range	73.1°C
Flash point	0.5°C
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.

Relative density	0.7902 @ 20°C 0.7947 @ 15°C
Bulk density	No information available.
Solubility(ies)	No information available.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available

9.2 Other information

Refractive index 1.394 - 1.402

SECTION 10: STABILITY and RELIALIBITY

10.1. Reactivity

Reactivity The following materials may react with the product: Oxidising materials. Acids. Alkalis.

10.2 Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous Reaction Vapours may form explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

10.4. Conditions to avoid Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges.

10.5. Incompatible materials

Materials to avoid Oxidising agents. Acids. Alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition Products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological effects	No information available.
Acute toxicity - oral	
ATE oral (mg/kg)	7,328.07
Acute toxicity - dermal	
ATE dermal (mg/kg)	12,800.62
Acute toxicity - inhalation	
ATE inhalation (gases ppm)	39,823.01
ATE inhalation (vapours mg/l)	128.01
ATE inhalation (dusts/mists mg/l)	18.89
Skin corrosion/irritation	
Skin corrosion/irritation	No information available.
Serious eye damage/irritation	
Serious eye damage/irritation	No information available.
Respiratory sensitisation	
Respiratory sensitisation	No information available.
Skin sensitisation	
Skin sensitisation	No information available.

Germ cell mutagenicity	
Genotoxicity - in vitro	No information available.
Carcinogenicity	
Carcinogenicity	No information available.
Reproductive toxicity	
Reproductive toxicity - fertility	No information available.
Specific target organ toxicity - single exposure	
STOT - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
Aspiration hazard	
Aspiration hazard	May be fatal if swallowed and enters airways.
Inhalation	May cause drowsiness or dizziness.
Ingestion	May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	May cause temporary eye irritation

Toxicological information on ingredients.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
Notes (oral LD_{50})	OECD 401
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	2,800.0
Species	Rat
Notes (dermal LD_{50})	OECD 402
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	23.3
Species	Rat
Notes (inhalation LC_{50})	OECD 403
ATE inhalation (vapours mg/l)	
Skin corrosion/irritation	23.3
Animal data	No information available.
Serious eye damage/irritation	
Serious eye damage/irritation	
Respiratory sensitization	No information available.
Respiratory sensitisation	No information available.
Skin sensitisation	
Skin sensitisation	No information available.
Germ cell mutagenicity	
Genotoxicity - in vitro	No information available.
Carcinogenicity	
Carcinogenicity	No information available.
Reproductive toxicity	
Reproductive toxicity – fertility	No information available.
Specific target organ toxicity - single exposure	
STOT - single exposure	No information available.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	No information available.

Aspiration hazard	
Aspiration hazard	No information available.
Inhalation	Dust in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Powder may irritate skin.
Eye contact	Particles in the eyes may cause irritation and smarting.

BUTYL ACETATE -norm

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	10,760.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 10760 mg/kg, Oral, Rat
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	14,112.0
Species	Rabbit
Notes (dermal LD_{50})	LD_{50} >14112 mg/kg, Dermal, Rabbit
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LC_0 23.4 mg/l, Inhalation, Vapour, Rat
Skin corrosion/irritation	
Animal data	Not irritating. Rabbit OECD 404
Serious eye damage/irritation	
Serious eye damage/irritation	
Respiratory sensitization	Not irritating. Rabbit OECD 405
Respiratory sensitisation	No information available.
Skin sensitisation	
Skin sensitisation	Guinea pig maximization test (GPMT) - : Not sensitising**.**
Germ cell mutagenicity	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. DNA damage and/or repair: negative
Carcinogenicity	No information available.
Reproductive toxicity	
Reproductive toxicity – fertility	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	
STOT -	repeated exposure NOAEC 2.4 mg/l, Inhalation, Rat
Aspiration hazard	
Aspiration hazard	No information available.
Inhalation	Vapours irritate the respiratory system. May cause coughing and difficulties in breathing. Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. Vapours may cause drowsiness and dizziness.
Ingestion	Gastrointestinal symptoms, including upset stomach. Nausea, vomiting. Skin contact Repeated exposure may cause skin dryness or cracking.
Eye contact	May cause temporary eye irritation.

ETHANOL

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	10,470.0

Species	Rat
Notes (oral LD_{50})	LD_{50} 10470 mg/kg, Oral, Rat
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} 15,800.0 mg/kg)	
Species	Rat
Notes (dermal LD_{50})	LD_{50} 15800 mg/kg, Dermal, Rat
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	20.0
Species	Rat
Notes (inhalation LC_{50})	LC_{50} 20 mg/l, Inhalation, Vapour, Rat
ATE inhalation (vapours mg/l)	
Skin corrosion/irritation	20.0
Animal data	Not irritating. Rabbit OECD 404
Serious eye damage/irritation	
Serious eye damage/irritation	Irritating. Rabbit OECD 405
Respiratory sensitisation	
Respiratory sensitisation	Not sensitising.
Skin sensitisation	
Skin sensitisation	Not sensitising. Mouse OECD 429
Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity - Fertility	Based on available data the classification criteria are not met
Specific target organ toxicity - single exposure	
STOT - single exposure	No information available.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	No information available.
Aspiration hazard	
Aspiration hazard	No information available.
Inhalation	Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Ingestion	Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	Irritating to eyes.

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} >15000 mg/kg, Oral, Rat OECD 401
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} >3400 mg/kg, Dermal, Rabbit OECD 402
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LD_{50} >13.1 mg/l, Inhalation, Rat OECD 403
Skin corrosion/irritation	
Animal data	No information available.
Serious eye damage/irritation	
Serious eye damage/irritation	No information available.
Respiratory sensitisation	
Respiratory sensitisation	No information available
Skin sensitisation	
Skin sensitisation	Based on available data the classification criteria are not met. OECD 406

Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity – fertility	Based on available data the classification criteria are not met.
Specific target organ toxicity - single exposure	
STOT - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	Causes damage to organs (Central nervous system) through prolonged or repeated exposure.
Aspiration hazard	
Aspiration hazard	May be fatal if swallowed and enters airways.
Inhalation	May cause drowsiness or dizziness. Overexposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Vapours in high concentrations are anaesthetic.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	May cause temporary eye irritation.

2-BUTOXYETHANOL

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	1,300.0
Species	Rat
ATE oral (mg/kg)	1,300.0
Acute toxicity - dermal	
Notes (dermal LD_{50})	OECD 402
ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
ATE inhalation (gases ppm)	4,500.0
ATE inhalation (vapours mg/l)	11.0
ATE inhalation (dusts/mists mg/l)	1.5
Skin corrosion/irritation	
Skin corrosion/irritation	Causes skin irritation. Prolonged or repeated exposure may cause severe irritation.
Serious eye damage/irritation	
Serious eye damage/irritation	
Respiratory sensitization	No information available.
Respiratory sensitisation	No information available.
Skin sensitisation	
Skin sensitisation	Not sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity – development	Based on available data the classification criteria are not met.
Specific target organ toxicity -	single exposure
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	No information available.
Aspiration hazard	
Aspiration hazard	No information available.

Inhalation	Harmful by inhalation.
Ingestion	Harmful if swallowed.
Skin contact	Harmful in contact with skin. Irritating to skin.
Eye contact	Irritating to eyes.
Acute and chronic health hazards	A single exposure may cause the following adverse effects: Central nervous system depression.
Target organs	Skin Eyes Respiratory system, lungs

METHANOL

Acute toxicity - oral	
ATE oral (mg/kg)	100.0
Acute toxicity - dermal	
ATE dermal (mg/kg)	300.0
Acute toxicity - inhalation	
ATE inhalation (gases ppm)	700.0
ATE inhalation (vapours mg/l)	3.0
ATE inhalation (dusts/mists mg/l)	0.5
Skin corrosion/irritation	
Skin corrosion/irritation	Not irritating. Rabbit
Serious eye damage/irritation	
Serious eye damage/irritation	Not irritating. Rabbit
Respiratory sensitisation	
Respiratory sensitisation	No information available.
Skin sensitisation	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. Gene mutation: Negative.
Genotoxicity - in vivo	DNA damage and/or repair: Negative. Mouse
Carcinogenicity	
Carcinogenicity	NOAEL 466 mg/kg/day, Oral, Rat
Reproductive toxicity	
Reproductive toxicity – fertility	No information available.
Reproductive toxicity – development	Embryotoxicity: - : , Oral, Mouse Negative. Fetotoxicity: - : , Oral, Mouse Positive.
Specific target organ toxicity - single exposure	
STOT - single exposure	STOT SE 1 - H370
Target organs	Central nervous system Eyes
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	LOAEL 2340 mg/kg, Oral, Monkey NOAEL 1.06 mg/l, Inhalation, Rat 90 days
Target organs	Eyes Central nervous system
Aspiration hazard	
Aspiration hazard	No information available.
Inhalation	Toxic by inhalation. Drowsiness, dizziness, disorientation, vertigo.
Ingestion	Toxic if swallowed. May cause unconsciousness, blindness and possibly death.
Skin contact	Toxic in contact with skin.
Eye contact	May cause temporary eye irritation.
Target organs	Kidneys Liver Heart & cardiovascular system
Medical considerations	Liver and/or kidney damage.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

BUTYL ACETATE -norm

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

ETHANOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Ecotoxicity Toxic to aquatic life with long lasting effects.

2-BUTOXYETHANOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

METHANOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1 Toxicity

Toxicity No information available.

Ecological information on ingredients.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Toxicity Not considered toxic to fish.
Acute aquatic toxicity
Acute toxicity - fish LC50, 96 hours: > 13.4 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity – aquatic invertebrates EC_{50}, 48 hours: 3 mg/l, Daphnia magna

Acute toxicity - aquatic plants NOEC, 72 hours: 200 mg/l, Desmodesmus subspicatus

Acute toxicity – microorganisms IC_{50}, 40 hour: 356 mg/l,

ETHANOL

Acute toxicity - fish LC_{50}, 48 hours: > 100 mg/l, Leuciscus idus (Golden orfe) LC_{50}, 96 hour: 14200 mg/l, Pimephales promelas (Fat-head Minnow) LC_{50}, 96 hour: 13000 mg/l, Oncorhynchus mykiss (Rainbow trout) LC_{50}, 96 hour: 12000 - 16000 mg/l, Oryzias latipes (Red killifish)

Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 12340 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC_{50}, 48 hours: > 100 mg/l, Selenastrum capricornutum EC_{50}, 72 hour: 275 mg/l,(Chlorella vulgaris)

Chronic aquatic toxicity NOEC, 9 day: 9.6 mg/l, Daphnia magna
Chronic toxicity - aquatic invertebrates

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Acute aquatic toxicity
Acute toxicity - fish LC_{50}, 96 hours: 10 - 30 mg/l, Fish
Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 10 - 22 mg/l, Daphnia magna
Acute toxicity - aquatic plants IC_{50}, 72 hours: 4.6 - 10 mg/l, Algae
Chronic aquatic toxicity
Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.097 mg/l, Daphnia magna

2-BUTOXYETHANOL

Toxicity	Not considered toxic to fish.
Acute aquatic toxicity	
Acute toxicity - fish	LC50, 96 hours: 1474 mg/l, Oncorhynchus mykiss (Rainbow trout) OECD 203
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1550 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 1840 mg/l, Algae NOEC, 72 hour: 130 mg/l, Algae
Chronic aquatic toxicity	
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 100 mg/l, Daphnia magna

METHANOL

Acute toxicity - fish	LC50, 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill) NOEC, 200 hour: 15800 mg/l, Oryzias latipes (Red killifish) LC_{50}, 96 hour: > 100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: > 10000 mg/l, Daphnia magna EC_{50}, 96 hour: 22200 - 23400 mg/l, Freshwater invertebrates Daphnia obtusa - Neonate EC_{50}, 48 hour: 2500 mg/l, Marinewater invertebrates Crangon Crangon (Common sand shrimp)
Acute toxicity - aquatic plants	EC_{50}, 96 hours: 22000 mg/l, Selenastrum capricornutum EC_{50}, 96 hour: 16.912 mg/l, Marinewater algaeUlva pertusaChronic, NOEC, 96 hour: 9.96 mg/l, Marinewater algae Ulva pertusa
Acute toxicity -microorganisms	IC_{50}, 15 hour: 20000 mg/l, IC_{50}, 3 hour: > 1000 mg/l,

12.2 Persistence and degradability

Persistence and degradability Expected to be readily biodegradable.

Ecological information on ingredients.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Persistence and degradability	The product is readily biodegradable.
Biodegradation	Water - Degradation (%) 83%: 28 days

ETHANOL

Persistence and degradability	The product is readily biodegradable. The product is degraded completely by photochemical oxidation.
Biodegradation -	Degradation 84%: 20 day - Half-life : 1 - <10 days

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Persistence and degradability	The product is readily biodegradable
Biodegradation	- 74.7%: 28 days

2-BUTOXYETHANOL

Persistence and degradability	The product is readily biodegradable.
Biodegradation -	Degradation (%) 90.4: 28 days

METHANOL

Persistence and degradability	Water - Degradation (%) 71.5: 5 days Water - Degradation (%) 95: 20 days
Biodegradation	The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential	No information available.
Partition coefficient	No information available.

Ecological information on ingredients.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	No information available.

BUTYL ACETATE -norm

Bioaccumulative potential	Bioaccumulation is unlikely. BCF: 3.1,
Partition coefficient :	2.3

ETHANOL

Bioaccumulative potential	The product is not bioaccumulating.
Partition coefficient :	- 0.31

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient :	>4

2-BUTOXYETHANOL

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating. BCF: < 100,
Partition coefficient :	~0.8

METHANOL

Bioaccumulative potential	The product is not bioaccumulating. BCF: < 10, Leuciscus idus (Golden orfe)
Partition coefficient :	-0.82 / -0.66

12.4 Mobility in soil

Mobility	No information available.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Mobility	*The product is insoluble in water.*
Surface tension	*0.0192 mN/m @ 25°C*

ETHANOL

Mobility	The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. The product is water-soluble and may spread in water systems.

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Mobility	The product is insoluble in water.

2-BUTOXYETHANOL

Mobility	The product is soluble in water.

METHANOL

Mobility	The product is soluble in water.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB	This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Results of PBT and vPvB	This product does not contain any substances classified as PBT or vPvB. assessment

BUTYL ACETATE -norm

Results of PBT and vPvB	This substance is not classified as PBT or vPvB according to current EU criteria. assessment

ETHANOL

Results of PBT and vPvB	This substance is not classified as PBT or vPvB according to current EU criteria. Assessment

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

12.6 Other adverse effects

HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS

Other adverse effects	Not known.

BUTYL ACETATE -norm

Other adverse effects	Not available.

ETHANOL

Other adverse effects	The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)

Other adverse effects	Not determined.

2-BUTOXYETHANOL

Other adverse effects	Not determined.

METHANOL

Cod	1.42

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

General information	Waste is classified as hazardous waste. Highly flammable liquid and vapour. Do not puncture or incinerate, even when empty. Do not cut or weld used containers unless they have been thoroughly cleaned internally. Materials such as cleaning rags and paper wipes that are contaminated with flammable liquids may self-ignite after use and should be stored in designated fireproof containers with tight-fitting, self-closing lids. Toxic to aquatic life with long lasting effects. Do not discharge into drains or watercourses or onto the ground.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN No. (ADR/RID)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993
UN No. (ADN)	1993

14.2 UN proper shipping name

Proper shipping name (ADR/RID)	FLAMMABLE LIQUID, N.O.S. (CONTAINS HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS, HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%))
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS, HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%))

Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (CONTAINS HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS, HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%))
Proper shipping name (ADN)	FLAMMABLE LIQUID, N.O.S. (CONTAINS HYDROCARBONS C7 - C9 N ALKANES, ISOALKANES, CYCLICS, HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%))

14.3 Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels

14.4 Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5 Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6 Special precautions for user

EmS	F-E, S-E
ADR transport category	2
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015. This product may impact SEVESO storage regulations.

Restrictions (Title VIII Regulation 1907/2006)

This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 69

15.2 Chemical safety assessment

Not applicable

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
CAS: Chemical Abstracts Service. DNEL: Derived No Effect Level.
IATA: International Air Transport Association. IMDG: International Maritime Dangerous Goods. Kow: Octanol-water partition coefficient.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose). PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
vPvB: Very Persistent and Very Bioaccumulative. IARC: International Agency for Research on Cancer.
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
cATpE: Converted Acute Toxicity Point Estimate. BCF: Bioconcentration Factor.
BOD: Biochemical Oxygen Demand.
EC_{50}: 50% of maximal Effective Concentration.
LOAEC: Lowest Observed Adverse Effect Concentration. LOAEL: Lowest Observed Adverse Effect Level.
NOAEC: No Observed Adverse Effect Concentration. NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration. LOEC: Lowest Observed Effect Concentration. DMEL: Derived Minimal Effect Level.
EL50: Exposure Limit 50 hPa: Hectopascal
LL50: Lethal Loading fifty
OECD: Organisation for Economic Co-operation and Development POW: Octanol-water partition coefficient
SCBA: self-contained breathing apparatus STP: Sewage Treatment Plant
VOC: Volatile Organic Compounds
Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic)
used in the safety data sheet

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Revision comments This is the first issue.
Revision date 28/11/2018
Version number 1.000
SDS number 56391
SDS status Approved

Hazard statements in full

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
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.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H370 Causes damage to organs .
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.