

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Detergent for cleaning clothes. For professional user/industrial user only.
Uses advised against (Professional user): not defined
- 1.3 Details of the supplier of the safety data sheet:**
KiiltoClean Oy
Tengströminkatu 6
PL157, 20101 Turku - FINLAND
Phone.: +358 (0) 207710400
asiakaspalvelu@kiiltoclean.fi
www.kiiltoclean.fi
- 1.4 Emergency telephone number:** Poison advisory center in Finland: +358 9 471 977

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) n° 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410
Met. Corr. 1: Corrosive to metals, Category 1, H290
Skin Corr. 1A: Skin corrosion, Category 1A, H314
Skin Sens. 1: Sensitisation, skin, Category 1, H317
- 2.2 Label elements:**
CLP Regulation (EC) n° 1272/2008:
Danger
-
- Hazard statements:**
Acute Tox. 4: H302 - Harmful if swallowed
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Sens. 1: H317 - May cause an allergic skin reaction
- Precautionary statements:**
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P313: Get medical advice/attention
- 2.3 Other hazards:**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substance:**
Non-applicable
- 3.2 Mixture:**
Chemical description: Basic solution
Components:
In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification		Concentration
CAS: 69011-36-5 EC: 500-241-6 Index: Non-applicable REACH: 02-2119552461-55-xxxx	Isotridecanol, ethoxylated Self-classified		5 - <15 %
	Regulation 1272/2008	Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger	
CAS: 34590-94-8 EC: 252-104-2 Index: Non-applicable REACH: 01-2119450011-60-XXXX	Dipropylene glycol methyl ether Not classified		5 - <15 %
	Regulation 1272/2008		
CAS: 112-34-5 EC: 203-961-6 Index: 603-096-00-8 REACH: 01-2119475104-44-XXXX	2-(2-Butoxyethoxy) ethanol ATP CLP00		5 - <15 %
	Regulation 1272/2008	Eye Irrit. 2: H319 - Warning	
CAS: 68439-50-9 EC: 932-106-6 Index: Non-applicable REACH: Non-applicable	Alcohols, C12-14, ethoxylated Self-classified		1 - <5 %
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	
CAS: 8028-48-6 EC: 232-433-8 Index: Non-applicable REACH: 01-2119493353-35-XXXX	Orange terpenes Self-classified		1 - <5 %
	Regulation 1272/2008	Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	
CAS: 69011-36-5 EC: 500-241-6 Index: Non-applicable REACH: Non-applicable	Isotridecanol, ethoxylated Self-classified		1 - <5 %
	Regulation 1272/2008	Aquatic Chronic 3: H412; Eye Dam. 1: H318 - Danger	
CAS: 31726-34-8 EC: Non-applicable Index: Non-applicable REACH: 02-2119549270-44-xxxx	Hexyl alcohol, ethoxylated Self-classified		1 - <5 %
	Regulation 1272/2008	Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	
CAS: 120313-48-6 EC: Non-applicable Index: Non-applicable REACH: Non-applicable	Fatty alcohol alkoxyate Self-classified		1 - <5 %
	Regulation 1272/2008	Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Skin Irrit. 2: H315 - Warning	

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, containing flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid projections and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 7: HANDLING AND STORAGE (continued)

A.- Technical measures for storage

Minimum Temp.: 10 °C
Maximum Temp.: 35 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the work environment

Identification	Environmental limits		
	IOELV (8h)	50 ppm	308 mg/m ³
Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	IOELV (STEL)		
	Year	2015	
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	IOELV (8h)	10 ppm	67.5 mg/m ³
	IOELV (STEL)	15 ppm	101.2 mg/m ³
	Year	2015	

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	65 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	310 mg/m ³	Non-applicable
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	20 mg/kg	Non-applicable
	Inhalation	Non-applicable	101.2 mg/m ³	67.5 mg/m ³	67.5 mg/m ³
Orange terpenes CAS: 8028-48-6 EC: 232-433-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	8.89 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	31.1 mg/m ³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	Oral	Non-applicable	Non-applicable	1.67 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	15 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	37.2 mg/m ³	Non-applicable
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	Oral	Non-applicable	Non-applicable	1.25 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	10 mg/kg	Non-applicable
	Inhalation	Non-applicable	50.6 mg/m ³	34 mg/m ³	34 mg/m ³
Orange terpenes CAS: 8028-48-6 EC: 232-433-8	Oral	Non-applicable	Non-applicable	4.44 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	4.44 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	7.78 mg/m ³	Non-applicable

PNEC:

Identification				
Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	STP	4168 mg/L	Fresh water	19 mg/L
	Soil	2.74 mg/kg	Marine water	1.9 mg/L
	Intermittent	190 mg/L	Sediment (Fresh water)	70.2 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	7.02 mg/kg

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	STP	200 mg/L	Fresh water	1 mg/L
	Soil	0.4 mg/kg	Marine water	0.1 mg/L
	Intermittent	3.9 mg/L	Sediment (Fresh water)	4 mg/kg
	Oral	56 g/kg	Sediment (Marine water)	0.4 mg/kg
Orange terpenes CAS: 8028-48-6 EC: 232-433-8	STP	2.1 mg/L	Fresh water	0.0054 mg/L
	Soil	0.261 mg/kg	Marine water	0.00054 mg/L
	Intermittent	0.00577 mg/L	Sediment (Fresh water)	1.3 mg/kg
	Oral	13.3 g/kg	Sediment (Marine water)	0.13 mg/kg

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420 and EN 374.

D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against liquid splash		EN 166:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			

F.- Additional emergency measures

It is not necessary to take additional emergency measures.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

As needed, Respiratory protection according to EN143: P2/P3. Protective gloves complying with EN374: butylrubber, nitrile rubber, PVC. Breakthrough time ≥ 480 min, material thickness ≥ 0,7 mm.

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Color:	Yellowish
Odor:	Fruity

Volatility:

Boiling point at atmospheric pressure:	100 °C
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	1030 kg/m ³
Relative density at 20 °C:	1.03
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	13
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Highly water-soluble
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

9.2 Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 10: STABILITY AND REACTIVITY (continued)

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Combustive materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Not applicable	Not applicable

Strong acids. Light metals.

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion (acute effect):

- Acute toxicity : The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, its consumption causes burns destroying the full thickness of fabrics. For more information on the secondary effects of contact with the skin see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Orange terpenes CAS: 8028-48-6 EC: 232-433-8	LD50 oral	5100 mg/kg	Rat
	LD50 dermal	5100 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	
Isotridecanol, ethoxylated CAS: 69011-36-5 EC: 500-241-6	LD50 oral	500 mg/kg	Rat
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Isotridecanol, ethoxylated CAS: 69011-36-5 EC: 500-241-6	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Alcohols, C12-14, ethoxylated CAS: 68439-50-9 EC: 932-106-6	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	
Hexyl alcohol, ethoxylated CAS: 31726-34-8 EC: Non-applicable	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	LC50	10000 mg/L (96 h)	Pimephales promelas	Fish
	EC50	1919 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Non-applicable		
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	LC50	1300 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	2850 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	53 mg/L (192 h)	Microcystis aeruginosa	Algae
Alcohols, C12-14, ethoxylated CAS: 68439-50-9 EC: 932-106-6	LC50	10 - 100 mg/L (96 h)		Fish
	EC50	10 - 100 mg/L		Crustacean
	EC50	10 - 100 mg/L		Algae
Orange terpenes CAS: 8028-48-6 EC: 232-433-8	LC50	0.702 mg/L (96 h)	Pimephales promelas	Fish
	EC50	0.67 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	170 mg/L (72 h)	Desmodesmus subspicatus	Algae
Isotridecanol, ethoxylated CAS: 69011-36-5 EC: 500-241-6	LC50	10 - 100 mg/L (96 h)		Fish
	EC50	10 - 100 mg/L		Crustacean
	EC50	10 - 100 mg/L		Algae
Fatty alcohol alkoxylate CAS: 120313-48-6 EC: Non-applicable	LC50	0.1 - 1 mg/L (96 h)		Fish
	EC50	0.1 - 1 mg/L		Crustacean
	EC50	0.1 - 1 mg/L		Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	BOD5	Non-applicable	Concentration	Non-applicable
	COD	0.00202 g O2/g	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	73 %
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	BOD5	0.25 g O2/g	Concentration	100 mg/L
	COD	2.08 g O2/g	Period	28 days
	BOD5/COD	0.12	% Biodegradable	92 %

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Degradability		Biodegradability	
	Orange terpenes CAS: 8028-48-6 EC: 232-433-8	BOD5	Non-applicable	Concentration
	COD	2.519 g O2/g	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	3 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
	Dipropylene glycol methyl ether CAS: 34590-94-8 EC: 252-104-2	BCF
	Pow Log	-0.06
	Potential	Low
2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	BCF	0.46
	Pow Log	0.56
	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	2-(2-Butoxyethoxy) ethanol CAS: 112-34-5 EC: 203-961-6	Koc	48	Henry
	Conclusion	Very High	Dry soil	No
	Surface tension	3.395E-2 N/m (25 °C)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
20 01 15*	Alkaline	Dangerous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2015 and RID 2015:

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN1814
14.2 UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group: II
14.5 Dangerous for the environment: Yes
14.6 Special precautions for user
Special regulations: Non-applicable
Tunnel restriction code: E
Physico-Chemical properties: see section 9
Limited quantities: 1 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 37-14:



- 14.1 UN number:** UN1814
14.2 UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group: II
14.5 Dangerous for the environment: Yes
14.6 Special precautions for user
Special regulations: Non-applicable
EmS Codes: F-A, S-B
Physico-Chemical properties: see section 9
Limited quantities: 1 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2015:



- 14.1 UN number:** UN1814
14.2 UN proper shipping name: POTASSIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group: II
14.5 Dangerous for the environment: Yes
14.6 Special precautions for user
Physico-Chemical properties: see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable
Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable
Article 95, REGULATION (EU) No 528/2012: Non-applicable

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 15: REGULATORY INFORMATION (continued)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Regulation (EC) n°648/2004 on detergents:

In accordance with this regulation the product complies with the following:

The tensoactives contained in this mixture comply with the biodegradability criteria stipulated in Regulation (EC) n°648/2004 on detergents. The information to prove this is available to the relevant authorities of the Member States and will be shown to them by direct request or the request of a detergent manufacturer.

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Contains more than 3 % of 2-(2-Butoxyethoxy) ethanol by weight. 1. Shall not be placed on the market for the first time after 27 June 2010, for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight. 2. Spray paints and spray cleaners in aerosol dispensers containing DEGBE and not conforming to paragraph 1 shall not be placed on the market for supply to the general public after 27 December 2010. 3. Without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that paints other than spray paints containing DEGBE in concentrations equal to or greater than 3 % by weight of that are placed on the market for supply to the general public are visibly, legibly and indelibly marked by 27 December 2010 as follows: 'Do not use in paint spraying equipment'.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

- Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products
- Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents
- Commission Regulation (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII
- Commission Regulation (EC) No 551/2009 of 25 June 2009 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes V and VI thereto (surfactant derogation)

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

- H290: May be corrosive to metals
- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage
- H317: May cause an allergic skin reaction
- H410: Very toxic to aquatic life with long lasting effects

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) n° 1272/2008:

- Acute Tox. 4: H302 - Harmful if swallowed
- Aquatic Acute 1: H400 - Very toxic to aquatic life
- Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
- Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 3: H226 - Flammable liquid and vapour
- Skin Irrit. 2: H315 - Causes skin irritation
- Skin Sens. 1: H317 - May cause an allergic skin reaction

- CONTINUED ON NEXT PAGE -

**KiiltoClean Oy - L 5003 Solven - 60140,60141,3102698
3102698**



SECTION 16: OTHER INFORMATION (continued)

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol–water partition coefficient

Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -