

SAFETY DATA SHEET Alcohol Based Hand Sanitizer

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of the	ne substance/mixture and of the company/undertaking
1.1. Product identifier	
Product name	Alcohol Based Hand Sanitizer
Product number	ACF-07441
1.2. Relevant identified uses of	f the substance or mixture and uses advised against
Identified uses	Hand Sanitizer.
1.3. Details of the supplier of the	ne safety data sheet
Supplier	Airedale Chemical Company Limited Airedale Mills Skipton Road Cross Hills Keighley West Yorkshire BD20 7BX +44 (0) 1535 637876 (Mon - Fri, 08:00 - 17:00 UK time only) +44 (0) 1535 630740 sds@airedalechemical.co.uk
1.4. Emergency telephone nun	nber
Emergency telephone	+44 (0) 1535 637876 (Mon - Fri, 08:00 - 17:00 UK time only)
National emergency telephone number	National Poisons Information Service
	For medical advice or information you should contact your GP or NHS 111 (or NHS 24 in Scotland) on 111 (for 24 hour health advice)
	If you are a healthcare professional with an enquiry please visit www.TOXBASE.org

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture	
Classification (EC 1272/2008)	
Physical hazards	Flam. Liq. 2 - H225
Health hazards	Not Classified
Environmental hazards	Not Classified
2.2. Label elements	

Hazard pictograms



Signal word	Danger
Hazard statements	H225 Highly flammable liquid and vapour.
Precautionary statements	 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P243 Take action to prevent static discharges. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P235 Store in a well-ventilated place. Keep cool.
Supplementary precautionary statements	 P233 Keep container tightly closed. P242 Use non-sparking tools. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ethanol		75 -85%
CAS number: 64-17-5	EC number: 200-578-6	REACH registration number: 01- 2119457610-43-XXXX
Classification		
Flam. Liq. 2 - H225		
Glycerol		1-5%
CAS number: 56-81-5	EC number: 200-289-5	
Classification		
Not Classified		
hydrogen peroxide solution		<0.5
CAS number: 7722-84-1	EC number: 231-765-0	REACH registration number: 01- 2119485845-22-XXXX
Classification		
Ox. Liq. 1 - H271		
Acute Tox. 4 - H302		
Acute Tox. 4 - H332		
Skin Corr. 1A - H314		
Eye Dam. 1 - H318		
STOT SE 3 - H335		
Aquatic Chronic 3 - H412		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments All percentages displayed expressed as volume/volume.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical advice/attention if you feel unwell.
Skin contact	Rinse with water.
Eye contact	Rinse with water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. Get medical attention if any discomfort continues.
4.2. Most important symptoms	s and effects, both acute and delayed
General information	May cause irritation. Dizziness. Nausea, vomiting.
4.3. Indication of any immedia	te medical attention and special treatment needed
Notes for the doctor	No information available.
SECTION 5: Firefighting meas	sures
5.1. Extinguishing media	
Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
5.2. Special hazards arising fr	om the substance or mixture
Specific hazards	Flammable liquid and vapour. Forms 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. Fire-water run-off in sewers may create fire or explosion hazard.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. Do not allow material to enter confined spaces, due to the risk of explosion. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.
SECTION 6: Accidental release	se measures
6.1. Personal precautions, pro	tective equipment and emergency procedures
Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into

taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated.

6.2. Environmental precautions

Environmental precautions Do not allow material to enter confined spaces, due to the risk of explosion. Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Contain and absorb spillage with sand, earth or other non-combustible material. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Vapours may form explosive mixtures with air. Avoid the formation of mists. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.
7.2. Conditions for safe storag	e, including any incompatibilities
Storage precautions	Store away from incompatible materials (see Section 10). Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
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

ethanol

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

Glycerol

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ mist

hydrogen peroxide solution

Long-term exposure limit (8-hour TWA): WEL 1 ppm 1.4 mg/m³ Short-term exposure limit (15-minute): WEL 2 ppm 2.8 mg/m³ WEL = Workplace Exposure Limit

ethanol (CAS: 64-17-5)

DNEL	Industry - Inhalation; Short term local effects: 1900 mg/m ³ Industry - Inhalation; Long term systemic effects: 950 mg/m ³ Industry - Dermal; Long term systemic effects: 343 mg/kg/day Consumer - Inhalation; Short term local effects: 950 mg/m ³ Consumer - Inhalation; Long term systemic effects: 114 mg/m ³ Consumer - Dermal; Long term systemic effects: 206 mg/kg/day Consumer - Oral; Long term systemic effects: 87 mg/kg/day
PNEC	- Fresh water; 960 μg/l - marine water; 790 μg/l - STP; 580 mg/l - Sediment (Freshwater); 3.6 mg/kg - Sediment (Marinewater); 2.9 mg/kg - Soil; 0.63 mg/kg
	Glycerol (CAS: 56-81-5)
DNEL	Workers - Inhalation; Long term local effects: 56 mg/m ³ General population - Inhalation; Long term local effects: 33 mg/m ³ General population - Oral; Long term systemic effects: 229 mg/kg
PNEC	 Fresh water; 0.885 mg/l marine water; 0.0885 mg/l Intermittent release; 8.85 mg/l Sediment (Freshwater); 3.3 mg/kg Sediment (Marinewater); 0.33 mg/kg Soil; 0.141 mg/kg STP; 1000 mg/l
	hydrogen peroxide solution (CAS: 7722-84-1)
DNEL	Workers - Inhalation; Short term local effects: 3 mg/m ³ Workers - Inhalation; Long term local effects: 1.4 mg/m ³ Consumer - Inhalation; Short term local effects: 1.93 mg/m ³ Consumer - Inhalation; Long term local effects: 0.21 mg/m ³
PNEC	 Fresh water; 0.0126 mg/l marine water; 0.0126 mg/l Soil; 0.0023 mg/kg STP; 4.66 mg/l Sediment (Freshwater); 0.047 mg/kg Sediment (Marinewater); 0.047 mg/kg Intermittent release; 0.0138 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection	Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash after use and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Keep container tightly sealed when not in use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Alcoholic.
Odour threshold	No information available.
рН	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	~ 20°C Not specified. Data taken from tables.
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	No information available.
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not considered to be explosive.

Oxidising properties		ture itself has not been tested but none of the ingredient substances meet the criteria sification as oxidising.
9.2. Other information		
SECTION 10: Stability and	reactivity	
10.1. Reactivity		
Reactivity	Vapours	s may form explosive mixtures with air.
10.2. Chemical stability		
Stability		at normal ambient temperatures and when used as recommended. Stable under the ed storage conditions.
10.3. Possibility of hazardo	ous reactions	
Possibility of hazardous reactions	The follo	owing materials may react strongly with the product: Oxidising agents. Strong acids.
10.4. Conditions to avoid		
Conditions to avoid	when he	eat, flames and other sources of ignition. Containers can burst violently or explode eated, due to excessive pressure build-up. Static electricity and formation of sparks prevented.
10.5. Incompatible materia	ls	
Materials to avoid	Oxidisin	g materials. Strong acids.
10.6. Hazardous decompo	sition product	ts
Hazardous decomposition products		ot decompose when used and stored as recommended. Thermal decomposition or tion products may include the following substances: Harmful gases or vapours.
SECTION 11: Toxicologica	al information	
11.1. Information on toxico Toxicological information of	-	-
		ethanol
Acute toxicity	- oral	
Acute toxicity mg/kg)	oral (LD₅₀	10,470.0
Species		Rat
ATE oral (mg	/kg)	10,470.0
Acute toxicity	- inhalation	
Acute toxicity (LC₅₀ vapours		116.9
Species		Rat

ATE inhalation (vapours

Skin corrosion/irritation

Serious eye damage/irritation

mg/l)

116.9

Not irritating.

Serious eye damage/irritation	Not irritating.
Skin sensitisation	
Skin sensitisation	Not sensitising.
Germ cell mutagenicity	
Genotoxicity - in vitro	Gene mutation: Negative.
Genotoxicity - in vivo	Chromosome aberration: Inconclusive.
Carcinogenicity	
Carcinogenicity	NOAEL >3000 mg/kg, Oral, Rat
Reproductive toxicity	
Reproductive toxicity - fertility	No evidence of reproductive toxicity in animal studies.
Specific target organ toxici	y - single exposure
STOT - single exposure	Data lacking.
Specific target organ toxici	y - repeated exposure
STOT - repeated exposure	Conclusive data but not sufficient for classification.
Aspiration hazard	
Aspiration hazard	Conclusive data but not sufficient for classification.
	Glycerol
Toxicological effects	Not regarded as a health hazard under current legislation.
Toxicological effects Acute toxicity - oral	
-	
Acute toxicity - oral Acute toxicity oral (LD ₅₀	Not regarded as a health hazard under current legislation.
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg)	Not regarded as a health hazard under current legislation.
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀)	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met.
Acute toxicity - oral Acute toxicity oral (LD50 mg/kg) Species Notes (oral LD50) ATE oral (mg/kg)	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀ mg/kg)	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0 56,750.0
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀ mg/kg) Species	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0 56,750.0 Guinea pig
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀ mg/kg) Species Notes (dermal LD ₅₀)	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0 56,750.0 Guinea pig Based on available data the classification criteria are not met.
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀ mg/kg) Species Notes (dermal LD ₅₀) ATE dermal (mg/kg)	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0 56,750.0 Guinea pig Based on available data the classification criteria are not met.
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀ mg/kg) Species Notes (dermal LD ₅₀) ATE dermal (mg/kg) Acute toxicity - inhalation	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0 56,750.0 Guinea pig Based on available data the classification criteria are not met. 56,750.0
Acute toxicity - oral Acute toxicity oral (LD ₅₀ mg/kg) Species Notes (oral LD ₅₀) ATE oral (mg/kg) Acute toxicity - dermal Acute toxicity dermal (LD ₅₀ mg/kg) Species Notes (dermal LD ₅₀) ATE dermal (mg/kg) Acute toxicity - inhalation Notes (inhalation LC ₅₀)	Not regarded as a health hazard under current legislation. 11,500.0 Guinea pig Based on available data the classification criteria are not met. 11,500.0 56,750.0 Guinea pig Based on available data the classification criteria are not met. 56,750.0

Serious eye damage/irritation	Not irritating.
Respiratory sensitisation	
Respiratory sensitisation	Not determined.
Skin sensitisation	
Skin sensitisation	Not determined.
Germ cell mutagenicity	
Genotoxicity - in vitro	Negative.
Carcinogenicity	
Carcinogenicity	Conclusive data but not sufficient for classification.
Reproductive toxicity	
Reproductive toxicity - fertility	Conclusive data but not sufficient for classification.
Reproductive toxicity - development	Conclusive data but not sufficient for classification.
Specific target organ toxicit	y - single exposure
STOT - single exposure	Conclusive data but not sufficient for classification.
Specific target organ toxicit	y - repeated exposure
STOT - repeated exposure	Conclusive data but not sufficient for classification.
Aspiration hazard	
Aspiration hazard	Conclusive data but not sufficient for classification.
	hydrogen peroxide solution
Acute toxicity - oral	
<u>Acute toxicity - oral</u> Acute toxicity oral (LD₅₀ mg/kg)	602.0
Acute toxicity oral (LD ₅₀	602.0 Rat
Acute toxicity oral (LD₅₀ mg/kg)	
Acute toxicity oral (LD₅₀ mg/kg) Species	Rat
Acute toxicity oral (LD₅o mg/kg) Species ATE oral (mg/kg)	Rat
Acute toxicity oral (LD₅o mg/kg) Species ATE oral (mg/kg) Acute toxicity - dermal	Rat 602.0
Acute toxicity oral (LD ₅₀ mg/kg) Species ATE oral (mg/kg) <u>Acute toxicity - dermal</u> Notes (dermal LD ₅₀)	Rat 602.0
Acute toxicity oral (LD ₅₀ mg/kg) Species ATE oral (mg/kg) <u>Acute toxicity - dermal</u> Notes (dermal LD ₅₀) <u>Acute toxicity - inhalation</u> ATE inhalation (vapours	Rat 602.0 LD₅₀ >2000 mg/kg, Dermal, Rabbit
Acute toxicity oral (LD ₅₀ mg/kg) Species ATE oral (mg/kg) <u>Acute toxicity - dermal</u> Notes (dermal LD ₅₀) <u>Acute toxicity - inhalation</u> ATE inhalation (vapours mg/l)	Rat 602.0 LD₅₀ >2000 mg/kg, Dermal, Rabbit
Acute toxicity oral (LD ₅₀ mg/kg) Species ATE oral (mg/kg) <u>Acute toxicity - dermal</u> Notes (dermal LD ₅₀) <u>Acute toxicity - inhalation</u> ATE inhalation (vapours mg/l) <u>Skin corrosion/irritation</u>	Rat 602.0 LD₅o >2000 mg/kg, Dermal, Rabbit 11.0 Corrosive to skin. Causes severe burns.
Acute toxicity oral (LD ₅₀ mg/kg) Species ATE oral (mg/kg) Acute toxicity - dermal Notes (dermal LD ₅₀) Acute toxicity - inhalation ATE inhalation (vapours mg/l) Skin corrosion/irritation Skin corrosion/irritation	Rat 602.0 LD₅o >2000 mg/kg, Dermal, Rabbit 11.0 Corrosive to skin. Causes severe burns.

	Respiratory sensitisation	No data available.
	Skin sensitisation	
	Skin sensitisation	Conclusive data but not sufficient for classification.
	Germ cell mutagenicity	
	Genotoxicity - in vitro	Conclusive data but not sufficient for classification.
	Genotoxicity - in vivo	Conclusive data but not sufficient for classification.
	Carcinogenicity	
	Carcinogenicity	Conclusive data but not sufficient for classification.
	Reproductive toxicity	
	Reproductive toxicity - fertility	Conclusive data but not sufficient for classification.
	Reproductive toxicity - development	Conclusive data but not sufficient for classification.
	Specific target organ toxicit	y - single exposure
	STOT - single exposure	STOT SE 3 - H335 Respiratory system irritation.
	Target organs	Respiratory tract
	Specific target organ toxicit	y - repeated exposure
	STOT - repeated exposure	Conclusive data but not sufficient for classification. LOAEL 0.0029 mg/l, Inhalation, Rat NOAEL 26 mg/kg/day, Oral, Rat
	Aspiration hazard	
	Aspiration hazard	No data available.
SECTION 1	2: Ecological information	
12.1. Toxicit	<u>v</u>	
Acute aquat	<u>·</u>	
Summary	Not avail	able.
Ecological in	nformation on ingredients.	
		ethanol
	Acute aquatic toxicity	
	Acute toxicity - fish	LC_{50} , 96 hours: 14200 mg/l, Pimephales promelas (Fat-head Minnow)
	Acute toxicity - aquatic invertebrates	LC₅₀, 48 hour: 5012 mg/l, Ceriodaphnia dubia.
	Acute toxicity - aquatic plants	EC₅₀, 72 hour: 275 mg/l, Chlorella vulgaris.
	Chronic aquatic toxicity	
	Chronic toxicity - aquatic invertebrates	NOEC, 9 day: 9.6 mg/l, Daphnia magna
		Glycerol

Toxicity

Based on available data the classification criteria are not met.

	Acute aquatic to	kicity	
	Acute toxicity - fi	sh	LC₅₀, 96 hour: 885 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 96 hour: 54000 mg/l, Oncorhynchus mykiss (Rainbow trout)
	Acute toxicity - a invertebrates	quatic	LC₅₀, 48 hour: 1955 mg/l, Daphnia magna
			hydrogen peroxide solution
	Toxicity		Aquatic Chronic 3 - H412
	Acute aquatic to	kicity	
	Acute toxicity - fi	sh	LC₅₀, 96 hour: 16.4 mg/l, Pimephales promelas (Fat-head Minnow)
	Acute toxicity - a invertebrates	quatic	LC₅₀, 48 hour: 2.4 mg/l, Daphnia magna
	Acute toxicity - a plants	quatic	ErC50, 72 hour: 1.38 mg/l, skeletonema costatum
	Acute toxicity - microorganisms		EC₅₀, 0.5 hour: 466 mg/l, Activated sludge
	Chronic aquatic t	toxicity	
	Chronic toxicity - invertebrates	aquatic	NOEC, 21 day: 0.63 mg/l, Daphnia magna
12.2. Persis	tence and degrada	ability	
Persistence	and degradability	-	duct contains inorganic substances which are not biodegradable. The other ces in the product are expected to be readily biodegradable.
Ecological i	nformation on ingr	edients.	
			ethanol
	Persistence and degradability		The substance is readily biodegradable.
			Glycerol
	Persistence and degradability		The product is readily biodegradable.
			hydrogen peroxide solution
	Persistence and degradability		Substance is inorganic.
12.3. Bioac	cumulative potentia	al	
Bioaccumul	ative potential	The proc	duct does not contain any substances expected to be bioaccumulating.
Partition co	efficient	Not appl	licable.
Ecological i	nformation on ingre	edients.	
			ath an al

ethanol

Bioaccumulative potential Bioaccumulation is unlikely.

	Partition coefficient	log Kow: -0.31
		Glycerol
	Partition coefficient	log Pow: -1.75
		hydrogen peroxide solution
	Partition coefficient	Kow: -1.57 Calculation method.
<u>12.4. Mobil</u>		
Mobility	-	duct is soluble in water.
Ecological	information on ingredients.	
		ethanol
	Mobility	Soluble in water.
		Glycerol
	Mobility	The product is water-soluble and may spread in water systems.
		hydrogen peroxide solution
	Henry's law constant	0.001 Pa m³/mol @ 20°C
	Surface tension	80.4 mN/m @ 20°C
12.5 Dogu	lts of PBT and vPvB assessn	-
12.0. NOSU	ILS OF FOT AND VEVD ASSESSI	nent
	PBT and vPvB This pro	nent oduct does not contain any substances classified as PBT or vPvB.
Results of assessmer	PBT and vPvB This pro	
Results of assessmer	PBT and vPvB This pro tt	
Results of assessmer	PBT and vPvB This pro tt	oduct does not contain any substances classified as PBT or vPvB.
Results of assessmer	PBT and vPvB This pro it information on ingredients. Results of PBT and vPvB	oduct does not contain any substances classified as PBT or vPvB. <u>ethanol</u> This substance is not classified as PBT or vPvB according to current EU criteria.
Results of assessmer	PBT and vPvB This pro nt information on ingredients. Results of PBT and vPvB assessment	oduct does not contain any substances classified as PBT or vPvB. <u>ethanol</u> This substance is not classified as PBT or vPvB according to current EU criteria. <u>Glycerol</u>
Results of assessmer	PBT and vPvB This pro it information on ingredients. Results of PBT and vPvB	oduct does not contain any substances classified as PBT or vPvB. <u>ethanol</u> This substance is not classified as PBT or vPvB according to current EU criteria.
Results of assessmer	PBT and vPvB This pro it information on ingredients. Results of PBT and vPvB assessment Results of PBT and vPvB	oduct does not contain any substances classified as PBT or vPvB. <u>ethanol</u> This substance is not classified as PBT or vPvB according to current EU criteria. <u>Glycerol</u> This product does not contain any substances classified as PBT or vPvB.
Results of assessmer	PBT and vPvB This pro at information on ingredients. Results of PBT and vPvB assessment Results of PBT and vPvB assessment	ethanol This substance is not classified as PBT or vPvB. Glycerol This product does not contain any substances classified as PBT or vPvB according to current EU criteria. Hydrogen peroxide solution
Results of assessmer	PBT and vPvB This pro it information on ingredients. Results of PBT and vPvB assessment Results of PBT and vPvB	oduct does not contain any substances classified as PBT or vPvB. <u>ethanol</u> This substance is not classified as PBT or vPvB according to current EU criteria. <u>Glycerol</u> This product does not contain any substances classified as PBT or vPvB. <u>hydrogen peroxide solution</u>
Results of assessmer Ecological	PBT and vPvB This pro it information on ingredients. Results of PBT and vPvB assessment Results of PBT and vPvB assessment Results of PBT and vPvB	ethanol This substance is not classified as PBT or vPvB. Glycerol This product does not contain any substances classified as PBT or vPvB according to current EU criteria. Hydrogen peroxide solution
Results of assessmer Ecological	PBT and vPvB This pro tt information on ingredients. Results of PBT and vPvB assessment Results of PBT and vPvB assessment Results of PBT and vPvB assessment reducts of PBT and vPvB assessment	boduct does not contain any substances classified as PBT or vPvB. ethanol This substance is not classified as PBT or vPvB according to current EU criteria. Glycerol This product does not contain any substances classified as PBT or vPvB. hydrogen peroxide solution This substance is not classified as PBT or vPvB according to current EU criteria.
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SECTION 13: Disposal considerations

13.1. Waste treatment method	<u>S</u>
General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Disposal of this product, process solutions, residues and by- products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible.
SECTION 14: Transport inform	nation
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	9
Proper shipping name (ADR/RID)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ethanol)
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ethanol)
Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ethanol)
Proper shipping name (ADN)	FLAMMABLE LIQUID, N.O.S. (CONTAINS ethanol)
14.3. Transport hazard class(e	<u>s)</u>
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	П
IMDG packing group	Ш

ICAO packing group	II
ADN packing group	II
14.5. Environmental hazards	
Environmentally hazardous su No.	bstance/marine pollutant
14.6. Special precautions for u	Iser
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	

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture	
National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
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). Commission Regulation (EU) No 2015/830 of 28 May 2015. 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). Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances.
Seveso Directive - Control of major accident hazards	P5c Lower-tier 5000 tonnes Upper-tier 50000 tonnes.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	 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. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IATA: International Air Transport Association. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. CAS: Chemical Abstracts Service. ATE: Acute Toxicity Estimate. LC₅₀: Lethal Concentration to 50 % of a test population. LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose). EC₅₀: 50% of maximal Effective Concentration. PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative. REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
Classification abbreviations and acronyms	Flam. Liq. = Flammable liquid
Classification procedures according to Regulation (EC) 1272/2008	Flam. Liq. 2 - H225: : Expert judgement.
Training advice	Only trained personnel should use this material.
Revision date	25/03/2020
Revision	1
SDS number	7441
Hazard statements in full	 H225 Highly flammable liquid and vapour. H271 May cause fire or explosion; strong oxidiser. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H332 Harmful if inhaled. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.