

SAFETY DATA SHEET SURGICAL SPIRIT

NVS

National Veterinary Services

Revision Date: 08/09/2022

Revision No: 2

SECTION 1: Identification of	the substance/mixture and of the company/undertaking
1.1. Product identifier	
Product name	SURGICAL SPIRIT
Product number	
REACH registration notes	ALL COMPONENTS HAVE BEEN REGISTERED
1.2. Relevant identified uses	of the substance or mixture and uses advised against
Identified uses	Distribution of substance Formulation & (re)packing of substances and mixtures Uses in cleaning agents Agrochemical uses
Uses advised against	This product is not recommended for any industrial, professional or consumer uses other than those identified above.
1.3. Details of the supplier of	f the safety data sheet
Supplier	Vet Way Ltd Airfield Business Park Elvington York YO41 4EA
Tel	+44 (0) 1904 607 600
Email	info@vet-way.com
Website	www.vet-way.com
1.4. Emergency telephone n	umber
Emergency telephone	+44 (0) 1904 607 600
SECTION 2: Hazards identifi	ication
2.1. Classification of the sub	stance or mixture
Classification (EC 1272/2008	3)
Physical hazards	Flam. Liq. 2 - H225
Health hazards	Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Eye Irrit. 2 - H319
Environmental hazards	Not Classified
Human health	Irritating to eyes. May cause serious eye damage. Harmful in contact with skin Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Harmful by inhalation In high concentrations, vapours may be irritating to the respiratory system. In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death. Harmful if swallowed See Section 11 for additional information on health hazards.
Environmental	Not considered as an environmental hazard according to CLP criteria

The product is highly flammable. Vapours may form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.
Danger
H225 Highly flammable liquid and vapour. H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H319 Causes serious eye irritation.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 Use explosion-proof electrical equipment. P270 Do not eat, drink or smoke when using this product. 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. P501 Dispose of contents/ container in accordance with national regulations.
 P233 Keep container tightly closed. P240 Ground/ bond container and receiving equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe vapour/ spray. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P302+P352 IF ON SKIN: Wash with plenty of water. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/ doctor if you feel unwell. P321 Specific treatment (see medical advice on this label). P330 Rinse mouth. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. 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. P405 Store locked up.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ETHANOL			60	-100%
CAS number: 64-17-5	EC number: 200-57	8-6	REACH registration number: 01- 2119457610-43-XXXX	
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319		Classification (67/5 F;R11	48/EEC or 1999/45/EC)	
METHANOL				1-5%
CAS number: 67-56-1	EC number: 200-65	9-6	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		Classification (67/5 F;R11 T;R23/24/25	48/EEC or 1999/45/EC) ,R39/23/24/25	
CASTOR OIL				1-5%
CAS number: 8001-79-4	EC number: 232-29	3-8		
Classification Not Classified		Classification (67/5	48/EEC or 1999/45/EC)	
DIETHYL PHTHALATE				1-5%
CAS number: 84-66-2	EC number: 201-55	0-6	REACH registration number: 01- 2119486682-27-XXXX	
Classification Not Classified		Classification (67/5	48/EEC or 1999/45/EC)	
METHYL SALICYLATE CAS number: 119-36-8				<1%
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335		Classification (67/5 Xn;R22. Xi;R36/37/	48/EEC or 1999/45/EC) '38.	
METHYLAL PURE				<1%
CAS number: 109-87-5	EC number: 203-71	4-2	REACH registration number: 01- 2119664781-31-XXXX	
Classification Flam. Liq. 2 - H225		Classification (67/5 F;R11.	48/EEC or 1999/45/EC)	

ALLYL ALCOHOL		<1%
CAS number: 107-18-6	EC number: 203-470-7	REACH registration number: 01- 2119452689-23-XXXX
M factor (Acute) = 1		
Classification Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 Aquatic Acute 1 - H400		
The Full Text for all R-Phrase	es and Hazard Statements are Displayed in Sec	tion 16.
Composition comments	The data shown are in accordance with the la	atest EC Directives.
SECTION 4: First aid measu	res	
4.1. Description of first aid m	easures	
General information	Keep affected person under observation. Effected attention promptly. Show this Safety Data Sh	
Inhalation	trained personnel may assist affected persor	varm and at rest in a position comfortable for I respiration. When breathing is difficult, properly n by administering oxygen. Keep affected person ymptoms are severe or persist. Show this Safety
Ingestion	Get medical attention immediately. Rinse mo vomiting. If vomiting occurs, the head should lungs. Keep affected person under observation personnel.	•••
Skin contact	Remove affected person from source of cont immediately and wash skin with soap and wa occur after washing.	tamination. Remove contaminated clothing ater. Get medical attention promptly if symptoms
Eye contact	Remove any contact lenses and open eyelidation minutes. Get medical attention immediately.	s wide apart. Continue to rinse for at least 15
Protection of first aiders	First aid personnel should wear appropriate	protective equipment during any rescue.
4.2. Most important symptom	ns and effects, both acute and delayed	
General information	Get medical attention immediately. The casu possible.	alty should be transferred to hospital as soon as
Inhalation	anaesthetic and may cause headache, fatigu	atory system. In high concentrations, vapours are ue, dizziness and central nervous system effects. ess the central nervous system, causing dizziness ions, unconsciousness and death.
Ingestion	Gastrointestinal symptoms, including upset s	stomach. Diarrhoea. Nausea, vomiting.
Skin contact	Prolonged contact may cause redness, irritat on skin.	tion and dry skin. Product has a defatting effect

Eye contact	Causes serious eye irritation. Immediate first aid is imperative. Vapour or spray in the eyes may cause irritation and smarting.	
4.3. Indication of any immedia	te medical attention and special treatment needed	
Notes for the doctor	No specific recommendations.	
Specific treatments	No specific chemical antidote is known to be required after exposure to this product.	
SECTION 5: Firefighting meas	sures	
5.1. Extinguishing media		
Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire. Nonalcohol resistant foam	
5.2. Special hazards arising from the substance or mixture		
Specific hazards	Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Solvent vapours may form explosive mixtures with air. May ignite at high temperature. Highly flammable liquid and vapour. Vapours may accumulate on the floor and in low-lying areas. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. 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 be ignited by a spark, a hot surface or an ember.	
Hazardous combustion products	Oxides of carbon. Acrid smoke or fumes.	
5.3. Advice for firefighters		
Protective actions during firefighting	Move containers from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Control run-off water by containing and keeping it out of sewers and watercourses. 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. Use protective equipment appropriate for surrounding materials.	
SECTION 6: Accidental release measures		

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Take precautionary measures against static discharges. Take care as floors and other surfaces may become slippery. Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions Environmental Manager must be informed of all major spillages. Do not discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Stop leak if possible without risk. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Avoid the spillage or runoff entering drains, sewers or watercourses. Take care as floors and other surfaces may become slippery. Contain spillage with sand,
	earth or other suitable non-combustible material. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Dispose of contents/container in accordance with international regulations. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

6.4. Reference to other sections

Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe hand	dling
Usage precautions	Keep away from heat, sparks and open flame. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours and spray/mists. Avoid spilling. Avoid release to the environment. Use explosion-proof electrical, ventilating and lighting equipment. Use only in well-ventilated areas. Use suitable respiratory protection if ventilation is inadequate. Take precautionary measures against static discharge. Earth container and transfer equipment to eliminate sparks from static electricity. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=10 m/sec). AVOID splash filling Do not use compressed air for filling or discharging operations
Advice on general occupational hygiene	Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Clean equipment and the work area every day. Contaminated clothing should be placed in a closed container for disposal or decontamination.
7.2. Conditions for safe storage	ge, including any incompatibilities
Storage precautions	Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a well-ventilated place. Bund storage facilities to prevent soil and water pollution in the event of spillage. Earth container and transfer equipment to eliminate sparks from static electricity. Storage tanks and other containers must be earthed. Keep away from food, drink and animal feeding stuffs. Only store in correctly labelled containers. Suitable container materials: Carbon steel. Mild steel. Stainless steel. Unsuitable containers: copper, zinc, aluminium, copper alloy, zinc alloy, aluminium alloy. May attack some plastics, rubber and coatings.
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 Control	ols/personal protection

- 8.1. Control parameters
- Occupational exposure limits

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³ Short-term exposure limit (15-minute): WEL

METHANOL

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

CASTOR OIL

None established.

DIETHYL PHTHALATE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³ Short-term exposure limit (15-minute): WEL 10 mg/m³

METHYL SALICYLATE

Long-term exposure limit (8-hour TWA): No std. Short-term exposure limit (15-minute): No std.

METHYLAL PURE

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 3160 mg/m³ Short-term exposure limit (15-minute): WEL 1250 ppm 3950 mg/m³ WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

ETHANOL (CAS: 64-17-5)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Industry - Inhalation; Short term local effects: 1900 mg/m ³ Industry - Dermal; Long term systemic effects: 343 mg/kg/day Industry - Inhalation; Long term systemic effects: 950 mg/m ³ Consumer - Inhalation; Short term local effects: 950 mg/m ³ Consumer - Dermal; Long term systemic effects: 206 mg/kg/day Consumer - Inhalation; Long term systemic effects: 114 mg/m ³ Consumer - Oral; Long term systemic effects: 87 mg/kg/day
PNEC	Industry - Fresh water; Long term 0.96 mg/l Industry - Marine water; Long term 0.79 mg/l Industry - Intermittent release; Long term 2.75 mg/l Industry - STP; Long term 580 mg/l Industry - Sediment (Freshwater); Long term 3.6 mg/kg Industry - Sediment (Marinewater); Long term 2.9 mg/kg Industry - Soil; Long term 0.63 mg/kg
	METHANOL (CAS: 67-56-1)
Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Industry - Dermal; Short term systemic effects: 40 mg/kg/day Industry - Inhalation; Short term systemic effects: 260 mg/m ³ Industry - Dermal; Long term systemic effects: 40 mg/kg/day Industry - Inhalation; Long term systemic effects: 260 mg/m ³ Consumer - Dermal; Short term systemic effects: 8 mg/kg/day Consumer - Inhalation; Short term systemic effects: 50 mg/m ³ Consumer - Oral; Short term systemic effects: 8 mg/kg/day Consumer - Dermal; Long term systemic effects: 8 mg/kg/day

PNEC	Industry - Fresh water; Long term 20.8 mg/l Industry - Marine water; Long term 2.08 mg/l Industry - Intermittent release; Long term 1540 mg/l Industry - STP; Long term 100 mg/l Industry - Sediment (Freshwater); Long term 77 mg/kg Industry - Sediment (Marinewater); Long term mg/kg Industry - Soil; Long term mg/kg
DNEL	No DNEL values have been established
PNEC	No PNEC values have been established
	DIETHYL PHTHALATE (CAS: 84-66-2)
Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Industry - Dermal; Short term systemic effects: 7.5 mg/kg/day Industry - Inhalation; Short term systemic effects: 52.8 mg/m ³ Industry - Dermal; Long term systemic effects: 1.5 mg/kg/day Industry - Inhalation; Long term systemic effects: 10.56 mg/m ³ Consumer - Dermal; Short term systemic effects: .3.75 mg/kg/day Consumer - Inhalation; Short term systemic effects: 13 mg/m ³ Consumer - Dermal; Long term systemic effects: 0.75 mg/kg/day Consumer - Inhalation; Long term systemic effects: .2.6 mg/kg/day Consumer - Oral; Long term systemic effects: .0.75 mg/kg/day
PNEC	Industry - Fresh water; Long term 0.012 mg/l Industry - Marine water; Long term 0.0012 mg/l Industry - STP; Long term 2 mg/l Industry - Sediment (Freshwater); Long term 0.137 mg/kg Industry - Sediment (Marinewater); Long term 0.0137 mg/kg Industry - Soil; Long term 0.137 mg/kg
DNEL	Industry - Inhalation; Long term systemic effects: 17.5 mg/m ³ Industry - Inhalation; Short term systemic effects: 285 mg/m ³ Industry - Dermal; Long term systemic effects: 6 mg/kg/day Consumer - Inhalation; Long term systemic effects: 4 mg/m ³ Consumer - Inhalation; Short term systemic effects: 213 mg/m ³ Consumer - Dermal; Long term systemic effects: 3 mg/kg/day Consumer - Oral; Long term systemic effects: 1 mg/kg/day Consumer - Oral; Short term systemic effects: 5 mg/kg/day
PNEC	Industry - Fresh water; Long term 0.02 mg/l Industry - Marine water; Long term 0.002 mg/l Industry - Intermittent release; Long term 0.2 mg/l Industry - STP; Long term 140 mg/l Industry - Sediment (Freshwater); Long term 0.33 mg/kg Industry - Sediment (Marinewater); Long term 0.033 mg/kg Industry - Soil; Long term 0.35 mg/kg

METHYLAL PURE (CAS: 109-87-5)

DNEL	Industry - Dermal; Long term systemic effects: 22 mg/kg/day Industry - Inhalation; Long term systemic effects: 132 mg/m ³ General population - Dermal; Long term systemic effects: 5.7 mg/kg/day General population - Inhalation; Long term systemic effects: 39 mg/m ³ General population - Oral; Long term systemic effects: 9.6 mg/kg/day
PNEC	Industry - Fresh water; Long term 14,577 mg/l Industry - Marine water; Long term 1,477 mg/l Industry - STP; Long term 1.00 E4 mg/l Industry - Sediment (Freshwater); Long term 13,135 mg/kg Industry - Sediment (Marinewater); Long term 1,314 mg/kg Industry - Soil; Long term 4,654 mg/kg

8.2. Exposure controls



controls





Appropriate engineering As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. Ensure the ventilation system is regularly maintained and tested. Use explosion-proof electrical, ventilating and lighting equipment. This product must not be handled in a confined space without adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/face protection Wear eye protection. If risk of splashing, wear safety goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection Wear protective gloves. The selected gloves should have a breakthrough time of at least 8 hours. It is recommended that gloves are made of the following material: Butyl rubber. Polyethylene. Viton rubber (fluoro rubber). For short-term / splash protection the following are recommended Neoprene. To protect hands from chemicals, gloves should comply with European Standard EN374. 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.

Other skin and body Wear appropriate clothing to prevent any possibility of liquid contact and repeated or protection prolonged vapour contact. Provide eyewash station and safety shower.

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and Hygiene measures before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated clothing should be placed in a closed container for disposal or decontamination.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Gas and combination filter cartridges should comply with European Standard EN14387. Change filter cartridge on respirator daily. Check that the respirator fits tightly and the filter is changed regularly. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. When spraying, wear a suitable supplied-air respirator.

Environmental exposure Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties 9.1. Information on basic physical and chemical properties Appearance Liquid. Colour Colourless. Odour Alcoholic - 114°C Melting point Initial boiling point and range 78°C @ 1013 hPa Flash point 12°C CC (Closed cup). Evaporation rate 3.4 BuAc=1 Upper/lower flammability or Lower flammable/explosive limit: 2.5 % V Upper flammable/explosive limit: 13.5 % V explosive limits Vapour pressure 5.8 kPa @ °C Vapour density 1.03 **Bulk density** 0.79 - 0.81 kg/l @ 20'C Solubility(ies) Soluble in water. Miscible with the following materials: Organic solvents. Partition coefficient log Pow: - 0.35 363°C Auto-ignition temperature Viscosity 1.2 mPa s @ 20°C 9.2. Other information Other information Not available. Volatile organic compound This product contains a maximum VOC content of 100% . SECTION 10: Stability and reactivity 10.1. Reactivity Reactivity The following materials may react with the product: Strong oxidising agents. Strong acids 10.2. Chemical stability Stability Stable at normal ambient temperatures and when used as recommended. 10.3. Possibility of hazardous reactions Possibility of hazardous Reacts with strong acids Reacts with strong oxidising agents reactions 10.4. Conditions to avoid Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid heat. Avoid contact with the following materials: Strong oxidising agents. Avoid contact with acids. 10.5. Incompatible materials Materials to avoid Strong oxidising agents. Strong acids. Alkali metals. Acid anhydrides. 10.6. Hazardous decomposition products Hazardous decomposition Oxides of carbon. Acrid smoke or fumes. products

SECTION 11: Toxicological information

11.1. Information on toxicological effects	i
Acute toxicity - oral	
ATE oral (mg/kg) 500.0	
Acute toxicity - dermal	
ATE dermal (mg/kg) 1,100.0	
Acute toxicity - inhalation	
ATE inhalation (vapours mg/l) 11.0	
Toxicological information on ingredients	
	ETHANOL
Acute toxicity - oral	
Notes (oral LD₅₀)	LD₅₀ 10,470 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ 17,100 mg/kg, Dermal, Rabbit
Acute toxicity - inhalation	
Notes (inhalation LC₅₀)	LC₅₀ 124.7 mg/l/4hr/day, Inhalation, Rat
Skin corrosion/irritation	
Animal data	Not classified as irritating to skin
Serious eye damage/irritati	on
Serious eye damage/irritation	Classified as irritating to eyes
Respiratory sensitisation	
Respiratory sensitisation	Not classified as a respiratory sensitiser
Skin sensitisation	
Skin sensitisation	Not classified as a skin senistiser
Germ cell mutagenicity	
Genotoxicity - in vitro	Does not contain any substances known to be mutagenic.
Carcinogenicity	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.
Specific target organ toxicit	y - single exposure
STOT - single exposure	Based on available data the classification criteria are not met.
Specific target organ toxicit	y - repeated exposure
STOT - repeated exposure	Based on available data the classification criteria are not met.
Aspiration hazard	

Aspiration hazard

Aspiration hazard	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.	
General information	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.	
Inhalation	Vapours/aerosol spray may irritate the respiratory system. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system. Overexposure may depress the central nervous system, causing dizziness and intoxication. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.	
Ingestion	May cause discomfort if swallowed. Gastrointestinal symptoms, including upset stomach. May cause nausea, headache, dizziness and intoxication. Diarrhoea.	
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Product has a defatting effect on skin. May cause skin sensitisation or allergic reactions in sensitive individuals.	
Eye contact	Causes serious eye irritation. Repeated exposure may cause chronic eye irritation. Risk of serious damage to eyes.	
Acute and chronic health hazards	Irritating to eyes.	
Route of entry	Inhalation Ingestion Skin and/or eye contact	
Target organs	Central nervous system Eyes Gastro-intestinal tract Skin	
Medical symptoms	Central nervous system depression. Confusion, agitation and/or excitation. Gastrointestinal symptoms, including upset stomach. Diarrhoea. Dizziness. Intoxication. Nausea, vomiting. Irritation of eyes and mucous membranes.	
Medical considerations	History of alcoholism. Central nervous system depression. Splash in eye requires examination by eye specialist. Persons with rash are directed to skin expert for examination of allergic eczema.	
METHANOL		
Toxicological effects	This product is toxic.	
Acute toxicity - oral		
Notes (oral LD₅o)	LD₅₀ 1187 - 2769 mg/kg, Oral, Rat Classified as toxic There is a marked difference in acute oral toxicity between animals and man, man being more susceptible than animals. The estimated fatal dose for man is 100 millilitres (1/2 cup)	
ATE oral (mg/kg)	100.0	
Acute toxicity - dermal		
Notes (dermal LD₅₀)	LD₅₀ 17100 mg/kg, Dermal, Rabbit Classified as toxic	
ATE dermal (mg/kg)	300.0	
Acute toxicity - inhalation		
Notes (inhalation LC_{50})	LC₅₀ 128.2 mg/l, Inhalation, Rat Classified as toxic High concentrations may cause central nervous system depression resulting in headaches, dizziness and nausea;	

continued inhalation may result in unconsciousness and/or death

ATE inhalation (vapours	3.0	
mg/l) Skin corrosion/irritation		
Animal data	Not classified as irritating to skin	
Serious eye damage/irritati	•	
	Not classified as irritating to eyes	
Serious eye damage/irritation	Not classified as initiating to eyes	
Skin sensitisation		
Skin sensitisation	Not classified as a skin senistiser	
Germ cell mutagenicity		
Genotoxicity - in vitro	Does not contain any substances known to be mutagenic.	
Carcinogenicity		
Carcinogenicity	Does not contain any substances known to be carcinogenic.	
Reproductive toxicity		
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	
Specific target organ toxicit	y - single exposure	
STOT - single exposure	LOAEL 2000 mg/kg, Oral, Rat	
Target organs	Eyes	
Specific target organ toxicity - repeated exposure		
STOT - repeated exposure	NOAEC 0.13 mg/l/6hr/day, Inhalation, Rat	
Target organs	Heart and cardiovascular system Brain Liver	
Aspiration hazard		
Aspiration hazard	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.	
General information	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.	
Inhalation	Toxic if inhaled. Vapours/aerosol spray may irritate the respiratory system. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. When working extensively on big surfaces in small and badly ventilated rooms, vapours may develop in concentrations which may cause headache and irritation of the eyes and the respiratory system.	
Ingestion	Toxic: danger of very serious irreversible effects if swallowed. Gastrointestinal symptoms, including upset stomach. May cause nausea, headache, dizziness and intoxication. Diarrhoea.	
Skin contact	Toxic: danger of serious damage to health by prolonged exposure in contact with skin. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May cause skin sensitisation or allergic reactions in sensitive individuals.	
Eye contact	May be slightly irritating to eyes. May cause discomfort. Vapour or spray in the eyes may cause irritation and smarting.	

Route of entry	Inhalation Ingestion. Skin and/or eye contact	
Target organs	Central nervous system Eyes Gastro-intestinal tract Skin	
Medical symptoms	Drowsiness, dizziness, disorientation, vertigo. Intoxication. Symptoms following overexposure to dust may include the following: Irritability. Headache. Nausea, vomiting. Central nervous system depression. Irritation of eyes and mucous membranes.	
Medical considerations	In humans, over-exposure to methanol can result in blindness and metabolic acidosis. There is a marked difference in acute oral toxicity between animals and man, man being more susceptible than anaimals. The estimate mean fatal dose = 300 mg/kg for an adult.	
	CASTOR OIL	
Acute toxicity - oral		
Notes (oral LD₅₀)	Low toxicity	
Acute toxicity - dermal		
Notes (dermal LD ₅₀)	Low toxicity	
Acute toxicity - inhalation		
Notes (inhalation LC ₅₀)	Not available.	
Skin corrosion/irritation		
Animal data	Not classified as irritating to skin	
Serious eye damage/irritat	ion	
Serious eye damage/irritation	Not classified as irritating to eyes	
Respiratory sensitisation		
Respiratory sensitisation	Not classified as a respiratory sensitiser	
Skin sensitisation		
Skin sensitisation	Not classified as a skin senistiser	
Germ cell mutagenicity		
Genotoxicity - in vitro	Does not contain any substances known to be mutagenic.	
Carcinogenicity		
	Does not contain any substances known to be carcinogenic.	
Reproductive toxicity		
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	
Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.	
Specific target organ toxicity - single exposure		
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxici	ty - repeated exposure	

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard Aspiration hazard	Not considered an aspiration hazard.
General information	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
Inhalation	Vapours/aerosol spray may irritate the respiratory system. Vapours and spray/mists in high concentrations are narcotic.
Ingestion	Gastrointestinal symptoms, including upset stomach. Symptoms following overexposure may include the following: Stomach pain. Diarrhoea. Drowsiness, dizziness, disorientation, vertigo. Nausea, vomiting.
Skin contact	Prolonged and frequent contact may cause redness and irritation.
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.
Acute and chronic health hazards	This product has low toxicity. Only large volumes may have adverse impact on human health.
Route of entry	Inhalation Ingestion.
Target organs	No specific target organs known.
Medical considerations	Skin disorders and allergies. Splash in eye requires examination by eye specialist.
	DIETHYL PHTHALATE
Acute toxicity - oral	
Notes (oral LD₅₀)	LD₅₀ 8,600 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ 3,000 mg/kg, Dermal, Guinea pig
Acute toxicity - inhalation	
Notes (inhalation LC50)	No information available.
Serious eye damage/irritati	ion
Serious eye damage/irritation	Not classified as irritating to eyes
Respiratory sensitisation	
Respiratory sensitisation	Not classified as a respiratory sensitiser
Skin sensitisation	
Skin sensitisation	Not classified as a skin senistiser
Germ cell mutagenicity	
Genotoxicity - in vitro	Does not contain any substances known to be mutagenic.
Carcinogenicity	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.

Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.	
Specific target organ toxicit	v - single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxicit		
	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard		
Aspiration hazard	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.	
General information	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.	
Inhalation	Vapours/aerosol spray may irritate the respiratory system. Vapours and spray/mists in high concentrations are narcotic. Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication.	
Ingestion	Gastrointestinal symptoms, including upset stomach. Symptoms following overexposure may include the following: Stomach pain. Diarrhoea. Drowsiness, dizziness, disorientation, vertigo. Nausea, vomiting.	
Skin contact	Prolonged and frequent contact may cause redness and irritation.	
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.	
Acute and chronic health hazards	This product has low toxicity. Only large volumes may have adverse impact on human health.	
Route of entry	Inhalation Ingestion.	
Target organs	No specific target organs known.	
Medical considerations	Skin disorders and allergies. Splash in eye requires examination by eye specialist.	
	METHYL SALICYLATE	
Acute toxicity - oral		
Acute toxicity oral (LD₅₀ mg/kg)	887.0	
Species	Rat	
ATE oral (mg/kg)	500.0	
Acute toxicity - dermal		
Acute toxicity dermal (LD₅ mg/kg)	2,500.0	
Species	Rat	
Skin corrosion/irritation		
Animal data	Slightly irritating to skin	
Serious eye damage/irritation		

Serious eye damage/irritation	Irritating
Skin sensitisation	
Skin sensitisation	Not sensitizing to skin
Carcinogenicity	
Carcinogenicity	There is no evidence that the product can cause cancer.
Reproductive toxicity	·
Reproductive toxicity - fertility	This substance has no evidence of toxicity to reproduction.
Inhalation	Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Headache. Dizziness. Drowsiness. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations. May cause eye and respiratory system irritation. Symptoms following overexposure may include the following: Headache.
Ingestion	Harmful if swallowed. May cause stomach pain or vomiting. Gastrointestinal symptoms, including upset stomach.
Skin contact	Slightly irritating. Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking. May cause allergic contact eczema. Prolonged and frequent contact may cause redness and irritation.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Repeated exposure may cause chronic eye irritation.
Acute and chronic health hazards	Irritating to skin. Irritating to eyes. May cause respiratory system irritation. May cause stomach pain or vomiting.
Route of entry	Inhalation Ingestion. Skin and/or eye contact
SECTION 12: Ecological Information	
Ecological information on ingredients.	
	ETHANOL
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, large or frequent spills may have hazardous effects on the environment.
	CASTOR OIL
Ecotoxicity	The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.
	DIETHYL PHTHALATE
Ecotoxicity	The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Ecological information on ingredients.

Acute toxicity - aquatic

invertebrates

ETHANOL

Acute toxicity - fish	LC₅₀, 96 hours: 13,000 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	LC₅₀, 48 hours: 12,340 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 48 hours: 12,900 mg/l, Selenastrum capricornutum
Acute toxicity - microorganisms	EC₅₀, 4 hours: 5,800 mg/l, Activated sludge
Chronic toxicity - fish early life stage	NOEC, 24 days: > 0.08 mg/l, Pimephales promelas (Fat-head Minnow)
Chronic toxicity - aquatic invertebrates	NOEC, 10 days: 9.6 mg/l, Daphnia magna
	METHANOL
Acute toxicity - fish	LC50, 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill) Not classified as dangerous to the environment
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna Not classified as dangerous to the environment
Acute toxicity - aquatic plants	EC₅₀, 96 hours: 22000 mg/l, Selenastrum capricornutum Not classified as dangerous to the environment
	CASTOR OIL
Acute toxicity - fish	Not available.
Acute toxicity - aquatic invertebrates	Not available.
Acute toxicity - aquatic plants	Not available.
	DIETHYL PHTHALATE
Acute toxicity - fish	LC₅₀, 96 hours: 17 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 90 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 23 mg/l, Scenedesmus subspicatus
	METHYL SALICYLATE
Acute toxicity - fish	LC50, 96 hours: 1370 mg/l, Pimephales promelas (Fat-head Minnow)

EC₅₀, 48 hours: 870 mg/l, Daphnia magna

Acute toxicity - aquatic EC₅₀, 72 hours: 27 mg/l, Selenastrum capricornutum plants

12.2. Persistence and degradability

Ecological information on ingredients.

ETHANOL

	Persistence and degradability	The product is biodegradable. Oxidises rapidly by photochemical reactions in air.
	Biological oxygen demand	1,000 mg/g
	Chemical oxygen demand	1,900 mg/g
		METHANOL
	Persistence and degradability	The product is readily biodegradable. Oxidises rapidly by photochemical reactions in air.
		CASTOR OIL
	Persistence and degradability	Readily biodegradable
		DIETHYL PHTHALATE
	Persistence and degradability	Readily biodegradable
		METHYL SALICYLATE
	Persistence and degradability	Readily biodegradable
12.3. Bioacc	umulative potential	
Partition coe	fficient log Pow:	- 0.35
Ecological information on ingredients.		
		ETHANOL
	Bioaccumulative potential	Does not bioaccumulate significantly
	Partition coefficient	log Pow: - 0.35
		METHANOL
	Bioaccumulative potential	Does not bioaccumulate significantly
	Partition coefficient	log Pow: - 0.8
		CASTOR OIL
	Bioaccumulative potential	The product is not bioaccumulating.
		DIETHYL PHTHALATE

Bioaccumulative potential Does not bioaccumulate significantly

Partition coefficient log Pow: 2.2

METHYL SALICYLATE

Bioaccumulative potential Does not bioaccumulate significantly

log Pow: 2.55

Partition coefficient

12.4. Mobility in soil

Ecological information on ingredients.

ETHANOL

Mobility	The product is water-soluble and may spread in water systems. Large volumes may penetrate soil and could contaminate groundwater If product enters soil it will be mobile and may contaminate groundwater.
Henry's law constant	3.3 x 10 exp -6 atm m³/mol @ °C
Surface tension	24.5 mN/m @ 20°C
	METHANOL
Mobility	The product is water-soluble and may spread in water systems. Large volumes may penetrate soil and could contaminate groundwater The product is poorly adsorbed onto soils or sediments
	CASTOR OIL
Mobility	The product is insoluble in water and will spread on the water surface. If product enters soil it will be mobile and may contaminate groundwater.
	DIETHYL PHTHALATE
Mobility	The product is insoluble in water and will sediment in water systems. The product contains substances which may accumulate in sediment. Large volumes may penetrate soil and could contaminate groundwater
Henry's law constant	0.0399 Pa m3/mol @ 25°C
	METHYL SALICYLATE
Mobility	The product is partly miscible with water and may spread in the aquatic environment. If product enters soil it will be mobile and may contaminate groundwater.
12.5. Results of PBT and vPvB assessr	nent
Ecological information on ingredients.	

ETHANOL

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

METHANOL

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

CASTOR OIL

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

DIETHYL PHTHALATE

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

METHYL SALICYLATE

Results of PBT and vPvB This substance is not classified as PBT or vPvB according to current EU criteria. assessment 12.6. Other adverse effects Ecological information on ingredients.

ETHANOL

Other adverse effects	The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.
	METHANOL
Other adverse effects	The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.
	CASTOR OIL
Other adverse effects	No adverse effects are expected
	DIETHYL PHTHALATE
Other adverse effects	The product contains a substance or substances that will contribute to global warming (greenhouse effect).
	METHYL SALICYLATE
Other adverse effects	The product contains a substance or substances that will contribute to global warming (greenhouse effect).
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
General information Waste is	s classified as hazardous waste. Disposal to licensed waste disposal site in

General information accordance with the local Waste Disposal Authority. Contaminated packages must be completely emptied before sending away for laundering and re-use When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods

Collect and place in suitable waste disposal containers and seal securely. Empty containers or liners may retain some product residues and hence be potentially hazardous. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. 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. Confirm disposal procedures with environmental engineer and local regulations. Avoid the spillage or runoff entering drains, sewers or watercourses.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1170
UN No. (IMDG)	1170
UN No. (ICAO)	1170
UN No. (ADN)	1170

14.2. UN proper shipping name

 Proper shipping name
 ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

 (ADR/RID)
 ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

Proper shipping name (IMDG)	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Proper shipping name (ICAO)	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Proper shipping name (ADN)	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID label	3
IMDG class	3
ICAO class/division	3

Transport labels



14.4. Packing group	
ADR/RID packing group	П
IMDG packing group	П
ADN packing group	П
ICAO packing group	П

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

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EmS F-E, S-D
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Emergency Action Code 2YE

Hazard Identification Number 33 (ADR/RID)

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 Cat Z 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). Control of Substances Hazardous to Health Regulations 2002 (as amended). Dangerous Substances and Explosive Atmospheres Regulations 2002. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].	
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 Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. 	
Guidance	Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. Safety Data Sheets for Substances and Preparations.	
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.	
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.	

15.2. Chemical safety assessment

A chemical safety assessment has been carried out on the components

SECTION 16: Other information

Key literature references and
sources for dataDangerous Properties of Industrial Materials Report, N.Sax et.al. Registry of Toxic Effects of
Chemical Substances (RTECS). ECHA

Risk phrases in full	Not classified. R10 Flammable. R11 Highly flammable. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R21 Harmful in contact with skin. R22 Harmful if swallowed. R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R36/37/38 Irritating to eyes, respiratory system and skin. R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
Hazard statements in full	 H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H302 Harmful if swallowed. 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. H335 May cause respiratory irritation. H370 Causes damage to organs . H400 Very toxic to aquatic life.

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.