Univar Solutions

SAFETY DATA SHEET BRINEOL BIOETHANOL CONC

SECTION 1: Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier		
Product name	BRINEOL BIOETHANOL CONC	
Product number	53111	
1.2. Relevant identified uses o	f the substance or mixture and uses advised against	
Identified uses	Industrial Solvent Heat Carrier,	
1.3. Details of the supplier of the safety data sheet		
Supplier	Univar Aquarius House 6 Mid Point Business Park Bradford BD3 7AY +44 1274 267300 +44 1274 267306 sds@univar.com	
1.4. Emergency telephone nur	nber	
Emergency telephone	SGS - +32 (0)3 575 55 55 (24h)	
Sds No.	53111	
SECTION 2: Hazards identification	ation	
2.1. Classification of the subst	ance or mixture	
Classification (EC 1272/2008)		
Physical hazards	Flam. Liq. 2 - H225	
Health hazards	Eye Irrit. 2 - H319	
Environmental hazards	Not Classified	
2.2. Label elements Hazard pictograms		
Signal word	Danger	
Hazard statements	H225 Highly flammable liquid and vapour.	

H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.

Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	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

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

SECTION 3: Composition/information on ingredients		
3.2. Mixtures		
ETHANOL		60-100%
CAS number: 64-17-5	EC number: 200-578-6	REACH registration number: 01- 2119457610-43-XXXX
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319		
PROPAN-2-OL		5-10%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01- 2119457558-25-XXXX
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336		
BUTANOL-norm		1-5%
CAS number: 71-36-3	EC number: 200-751-6	REACH registration number: 01- 2119484630-38-XXXX
Classification		
Flam. Liq. 3 - H226		
Acute Tox. 4 - H302		
Skin Irrit. 2 - H315		
Eye Dam. 1 - H318		
STOT SE 3 - H335, H336		
The full text for all hazard sta	tements is displayed in Section 16.	
Composition comments	The data shown are in accordance with the la	atest EC Directives.

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.	
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if any discomfort continues.	

Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.	
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.	
4.2. Most important symptoms	and effects, both acute and delayed	
Inhalation	Upper respiratory irritation. Vapours may cause headache, fatigue, dizziness and nausea.	
Ingestion	May cause discomfort if swallowed. May cause nausea, headache, dizziness and intoxication.	
Eye contact	Causes serious eye irritation.	
4.3. Indication of any immediat	te medical attention and special treatment needed	
Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.	
SECTION 5: Firefighting meas	ures	
5.1. Extinguishing media		
Suitable extinguishing media	Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc. Alcohol-resistant foam.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
5.2. Special hazards arising fro	om the substance or mixture	
Specific hazards	Toxic gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO2).	
5.3. Advice for firefighters		
Protective actions during firefighting	Contain and collect extinguishing water.	
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.	
SECTION 6: Accidental releas	e 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.	
6.2. Environmental precautions	5	
Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.	
6.3. Methods and material for containment and cleaning up		
Methods for cleaning up	Stop leak if possible without risk. Absorb spillage with non-combustible, absorbent material. Flush contaminated area with plenty of water. Contain spillage with sand, earth or other suitable non-combustible material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.	
6.4. Reference to other section		
Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet.	
SECTION 7: Handling and stor	rage	
7.1. Precautions for safe hand	ling	

Usage precautions	Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Provide adequate ventilation.
7.2. Conditions for safe stor	age, including any incompatibilities
Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place.
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

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³ Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

BUTANOL-norm

Short-term exposure limit (15-minute): WEL 50 ppm 154 mg/m³ Sk WEL = Workplace Exposure Limit Sk = Can be absorbed through the skin.

Ingredient comments	WEL = Workplace Exposure Limits
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ETHANOL (CAS: 64-17-5)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Workers - Inhalation; Long term systemic effects: 950 mg/m ³ Workers - Inhalation; Short term local effects: 1900 mg/m ³ Workers - Dermal; Long term systemic effects: 343 mg/kg/day General population - Inhalation; Long term systemic effects: 114 mg/m ³ General population - Inhalation; Short term local effects: 950 mg/m ³ General population - Dermal; Long term systemic effects: 206 mg/kg/day General population - Oral; Long term systemic effects: 87 mg/kg/day
PNEC	 Fresh water; 0.96 mg/l marine water; 0.79 mg/l Intermittent release; 2.75 mg/l STP; 580 mg/l Sediment (Freshwater); 3.6 mg/kg Sediment (Marinewater); 2.9 mg/kg Soil; 0.63 mg/kg

DNEL Industry - Dermal; Long term systemic effects: 888 mg/kg/day Industry - Inhalation; Long term systemic effects: 500 mg/m³ Consumer - Dermal; Long term systemic effects: 319 mg/kg/day Consumer - Inhalation; Long term systemic effects: 89 mg/m³ Consumer - Oral; Long term systemic effects: 26 mg/kg/day

PNEC	 Fresh water; 140.9 mg/l marine water; 140.9 mg/l Intermittent release; 140.9 mg/l STP; 2251 mg/l Sediment (Freshwater); 552 mg/kg Sediment (Marinewater); 552 mg/kg Soil; 28 mg/kg
	BUTANOL-norm (CAS: 71-36-3)
Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Workers - Inhalation; Long term local effects: 310 mg/m³ General population - Dermal; Long term local effects: 55 mg/m³ General population - Oral; Long term systemic effects: 3.125 mg/kg/day
PNEC	 Fresh water; 0.082 mg/l marine water; 0.0082 mg/l Intermittent release; 2.25 mg/l STP; 2476 mg/l Sediment (Freshwater); 0.178 mg/kg Sediment (Marinewater); 0.0178 mg/kg Soil; 0.015 mg/kg

8.2. Exposure controls

Protective equipment







Eye/face protection	The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	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. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear rubber apron. Wear rubber footwear.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149

SECTION 9: Physical and chemical properties

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9.1. Information on basic physical and chemical properties	
Appearance	Liquid.
Colour	Blue.
Odour	Alcoholic.
Odour threshold	No information available.
рН	pH (concentrated solution): 7
Melting point	< -20°C
Initial boiling point and range	78°C

Flash point	12°C Closed cup.
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	5900 Pa @ 20°C
Vapour density	1.6
Relative density	0.81 @ 20°C
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	425°C
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available.
9.2. Other information	
Other information	Not determined.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.
SECTION 10: Stability and rea	ctivity
10.1. Reactivity	
Reactivity	There are no known reactivity hazards associated with this product.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended.
10.3. Possibility of hazardous r	reactions
Possibility of hazardous reactions	Not determined.

BRINEOL BIOETHANOL CONC

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time. Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid

Strong oxidising agents. Flammable/combustible materials.

10.6. Hazardous decomposition products

Hazardous decomposition Carbon monoxide (CO). Carbon dioxide (CO2). Aldehydes. Hydrocarbons. products

SECTION 11: Toxicological information		
11.1. Information on toxicologi	cal effects	
Acute toxicity - oral		
ATE oral (mg/kg)	45,454.55	
Skin corrosion/irritation		
Animal data	No information available.	
Serious eye damage/irritation		
Serious eye damage/irritation	Causes serious eye irritation.	
Respiratory sensitisation		
Respiratory sensitisation	No information available.	
Skin sensitisation		
Skin sensitisation	No information available.	
Germ cell mutagenicity		
Genotoxicity - in vitro	No information available.	
Carcinogenicity		
Carcinogenicity	No information available.	
Reproductive toxicity		
Reproductive toxicity - fertility	No information available.	
Specific target organ toxicity - single exposure		
STOT - single exposure	No information available.	
Specific target organ toxicity -	repeated exposure	
STOT - repeated exposure	No information available.	
Aspiration hazard		
Aspiration hazard	No information available.	
Inhalation	Vapour may irritate respiratory system/lungs.	
Ingestion	May cause discomfort if swallowed.	
Skin contact	Liquid may irritate skin.	
Eye contact	Causes serious eye irritation.	
Toxicological information on ingredients.		

ETHANOL

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	10,470.0
Species	Rat
Acute toxicity - dermal	
Acute toxicity dermal (LD∞ mg/kg)	15,800.0
Species	Rat
Acute toxicity - inhalation	
Acute toxicity inhalation (LC₅₀ vapours mg/l)	20.0
Species	Rat
ATE inhalation (vapours mg/l)	20.0
Skin corrosion/irritation	
Animal data	Not irritating. Rabbit OECD 404
Serious eye damage/irritati	on
Serious eye damage/irritation	Irritating. Rabbit OECD 405
Respiratory sensitisation	
Respiratory sensitisation	Not sensitising.
Skin sensitisation	
Skin sensitisation	Not sensitising. Mouse OECD 429
Germ cell mutagenicity	
Genotoxicity - in vitro	Based on available data the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Specific target organ toxicit	y - single exposure
STOT - single exposure	No information available.
Specific target organ toxicit	y - repeated exposure
STOT - repeated exposure	No information available.
Aspiration hazard	
Aspiration hazard	No information available.
Inhalation	Vapours in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.

BRINEOL BIOETHANOL CONC

Ingestion	Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication.
Skin contact	Repeated exposure may cause skin dryness or cracking.
Eye contact	Irritating to eyes.

PROPAN-2-OL

Acute toxicity - oral		
Acute toxicity oral (LD₅₀ mg/kg)	5,840.0	
Species	Rat	
Notes (oral LD₅₀)	OECD 401	
ATE oral (mg/kg)	5,840.0	
Acute toxicity - dermal		
Acute toxicity dermal (LD₅ mg/kg)	13,900.0	
Species	Rabbit	
Notes (dermal LD₅₀)	OECD 402	
ATE dermal (mg/kg)	13,900.0	
Acute toxicity - inhalation		
Acute toxicity inhalation (LC ₅₀ gases ppmV)	10,000.0	
Species	Rat	
Notes (inhalation LC ₅₀)	LC_{50} (6h) >10000 ppm, Inhalation, Rat OECD 403	
Skin corrosion/irritation		
Animal data	Not irritating.	
Serious eye damage/irritation		
Serious eye damage/irritation	Causes serious eye irritation.	
Respiratory sensitisation		
Respiratory sensitisation	Not sensitising.	
Skin sensitisation		
Skin sensitisation	Not sensitising.	
Germ cell mutagenicity		
Genotoxicity - in vivo	No information available.	
Carcinogenicity		
Carcinogenicity	There is no evidence that the product can cause cancer.	
Reproductive toxicity		
Reproductive toxicity - fertility	No information available.	

Specific target organ toxicity - single exposure			
STOT - single exposure	No information available.		
Specific target organ toxicit	y - repeated exposure		
STOT - repeated exposure	No information available.		
Aspiration hazard			
Aspiration hazard	No information available.		
Inhalation	May cause respiratory system irritation. Vapours may cause drowsiness and dizziness.		
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.		
Skin contact	Prolonged contact may cause dryness of the skin.		
Eye contact	Causes serious eye irritation.		
Target organs	Kidneys Liver		
	BUTANOL-norm		
Acute toxicity - oral			
Species	Rat		
Notes (oral LD₅₀)	Harmful if swallowed. (Annex VI 1272/2008 CLP) LD₅₀ 2292 mg/kg, Oral, Rat, Female OECD 401		
ATE oral (mg/kg)	500.0		
Acute toxicity - dermal			
Acute toxicity dermal (LD₅₀ mg/kg)	3,430.0		
Species	Rabbit		
Notes (dermal LD₅₀)	LD₅₀ 3430 mg/kg, Dermal, Rabbit		
ATE dermal (mg/kg)	3,430.0		
Acute toxicity - inhalation			
Acute toxicity inhalation (LC50 dust/mist mg/l)	17.76		
Species	Rat		
Notes (inhalation LC50)	LC_{50} (4h) > 17.76 mg/l, Inhalation, Vapour, Rat (0 Death.) OECD 403		
ATE inhalation (dusts/mists mg/l)	17.76		
Skin corrosion/irritation			
Skin corrosion/irritation	Causes skin irritation.		
Serious eye damage/irritati	on		
Serious eye damage/irritation	Causes serious eye damage.		

	Respiratory sensitisation	
	Respiratory sensitisation	No information available.
	Skin sensitisation	
	Skin sensitisation	No information available.
	Germ cell mutagenicity	
	Genotoxicity - in vitro	No information available.
	Carcinogenicity	
	Carcinogenicity	No information available.
	Reproductive toxicity	
	Reproductive toxicity - fertility	No information available.
	Specific target organ toxicity - single exposure	
	STOT - single exposure	May cause drowsiness or dizziness. Irritating to respiratory system. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
	Specific target organ toxicity - repeated exposure	
	STOT - repeated exposure No information available.	
	Aspiration hazard	
	Aspiration hazard	No information available.
	Inhalation	Vapour may irritate respiratory system/lungs. Central nervous system depression. Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
	Ingestion	Harmful if swallowed. Narcotic effect. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
	Skin contact	Causes skin irritation.
	Eye contact	Causes serious eye damage. A single exposure may cause the following adverse effects: Corneal damage.
SECTION 1	2: Ecological information	
Ecotoxicity	The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.	
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.
		PROPAN-2-OL
	Ecotoxicity	The product is not expected to be toxic to aquatic organisms.
		BUTANOL-norm

Ecotoxicity

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

12.1. Toxicity

Toxicity

Not considered toxic to fish.

Ecological information on ingredients.

ETHANOL

Toxicity	Not considered toxic to fish.
Acute aquatic toxicity	
Acute toxicity - fish	LC ₅₀ , 48 hours: > 100 mg/l, Leuciscus idus (Golden orfe) LC ₅₀ , 96 hour: 14200 mg/l, Pimephales promelas (Fat-head Minnow) LC ₅₀ , 96 hour: 13000 mg/l, Oncorhynchus mykiss (Rainbow trout) LC ₅₀ , 96 hour: 12000 - 16000 mg/l, Oryzias latipes (Red killifish)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 12340 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 48 hours: > 100 mg/l, Selenastrum capricornutum EC₅₀, 72 hour: 275 mg/l, (Chlorella vulgaris)
Chronic aquatic toxicity	
Chronic toxicity - aquatic invertebrates	NOEC, 9 day: 9.6 mg/l, Daphnia magna
	PROPAN-2-OL
Toxicity	Not considered toxic to fish.
Acute aquatic toxicity	
Acute toxicity - fish	LC_{50} , 48 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 10000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 7 days: 1800 mg/l, Algae

BUTANOL-norm

Toxicity	Not considered toxic to fish.
Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: 1376 mg/l, Pimephales promelas (Fat-head Minnow) OECD 203
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 1328 mg/l, Daphnia magna OECD 202

Acute toxicity - aquatic plants	EC₅₀, 96 hours: 225 mg/l, Pseudokirchneriella subcapitata OECD 201 IC₅₀, 72 hour: 4787 mg/l, Chlorella vulgaris OECD 201
Acute toxicity - microorganisms	EC10, 17 hour: 2476 mg/l, Pseudomonas putida
Chronic aquatic toxicity	
Chronic toxicity - aquatic invertebrates	NOEC, 21 day: 4787 mg/l, Daphnia magna OECD 211

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

ETHANOL

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

PROPAN-2-OL

Persistence and	The substance is readily biodegradable.
degradability	

Biological oxygen demand 53 %

BUTANOL-norm

Persistence and	The product is readily biodegradable.
degradability	

Biodegradation

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient

No information available.

Ecological information on ingredients.

ETHANOL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: - 0.31

PROPAN-2-OL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient

log Pow: 0.05 OECD 107

- Degradation 92 %: 15 days

BUTANOL-norm

Bioaccumulative potential BCF: 3.16,

Partition coefficient log Pow: 1.0 OECD 117

12.4. Mobility in soil

Mobility

The product is soluble in water.

Ecological information on ingredients.

ETHANOL

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

PROPAN-2-OL

Mobility The product is soluble in water.

Surface tension 22.7 mN/m @ 20°C

BUTANOL-norm

Mobility	The product is soluble in water.
Henry's law constant	0.986 Pa m³/mol @ 25°C
Surface tension	69.9 mN/m @ 20°C OECD 115

12.5. Results of PBT and vPvB assessment

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

assessment

Ecological information on ingredients.

ETHANOL

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

PROPAN-2-OL

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

BUTANOL-norm

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

Other adverse effects

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

Ecological information on ingredients.

ETHANOL

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

PROPAN-2-OL

Other adverse effects No data available.

BUTANOL-norm

Other adverse eff	ects No information required.			
SECTION 13: Disposal considerations				
13.1. Waste treatment methods				
General information	Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.			
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.			
SECTION 14: Transport inform	ation			
General	Wear protective clothing as described in Section 8 of this safety data sheet.			
14.1. UN number				
UN No. (ADR/RID)	1987			
UN No. (IMDG)	1987			
UN No. (ICAO)	1987			
UN No. (ADN)	1987			
14.2. UN proper shipping name				
Proper shipping name (ADR/RID)	ALCOHOLS, N.O.S. (CONTAINS ETHANOL AND PROPAN-2-OL)			
Proper shipping name (IMDG)	ALCOHOLS, N.O.S. (CONTAINS ETHANOL AND PROPAN-2-OL)			
Proper shipping name (ICAO)	ALCOHOLS, N.O.S. (CONTAINS ETHANOL AND PROPAN-2-OL)			
Proper shipping name (ADN)	ALCOHOLS, N.O.S. (CONTAINS ETHANOL AND PROPAN-2-OL)			
14.3. Transport hazard class(es)				
ADR/RID class	3			
ADR/RID classification code	F1			
ADR/RID label	3			
IMDG class	3			
ICAO class/division	3			
ADN class	3			
Transport labels				

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	П

ICAO packing group Ш Ш

ADN packing group

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

EmS	F-E, S-D	
ADR transport category	3	
Emergency Action Code	•3Y	
Hazard Identification Number (ADR/RID)	30	
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 No information required. 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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. This product may impact SEVESO storage regulations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms	ATE: Acute Toxicity Estimate.
used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by
	Road.
	ADN. European Agreement concerning the International Carnage of Dangerous Goods by
	CAS: Chemical Abstracts Service
	DNEL: Derived No Effect Level
	IATA: International Air Transport Association.
	IMDG: International Maritime Dangerous Goods.
	Kow: Octanol-water partition coefficient.
	LC₅₀: Lethal Concentration to 50 % of a test population.
	LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
	PBT: Persistent, Bioaccumulative and Toxic substance.
	PNEC: Predicted No Effect Concentration.
	REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation
	(EC) No 1907/2006.
	RID: European Agreement concerning the International Carriage of Dangerous Goods by
	Rail.
	vPvB: Very Persistent and Very Bioaccumulative.
	IARC: International Agency for Research on Cancer.
	MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as
	modified by the Protocol of 1978.
	cATPE: Converted Acute Toxicity Point Estimate.
	BCF: Bioconcentration Factor.
	BOD: Biochemical Oxygen Demand.
	EC50. 50% of maximal Elective Concentration.
	LOAEC. Lowest Observed Adverse Effect Level
	NOAEC: No Observed Adverse Effect Concentration
	NOAEC: No Observed Adverse Effect Level
	NOFC: No Observed Effect Concentration
	LOEC: Lowest Observed Effect Concentration
	DMEL: Derived Minimal Effect Level.
	EL50: Exposure Limit 50
	hPa: Hectopascal
	LL50: Lethal Loading fifty
	OECD: Organisation for Economic Co-operation and Development
	POW: Octanol-water partition coefficient
	SCBA: self-contained breathing apparatus
	STP: Sewage Treatment Plant
	VOC: Volatile Organic Compounds
Classification abbreviations	Acute Tox. = Acute toxicity
and acronyms	Aquatic Acute = Hazardous to the aquatic environment (acute)
-	Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Key literature references and	Cumpliarle information
Key literature references and	Supplier's information.
sources for data	
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	08/05/2019
Version number	1.001
Supersedes date	04/12/2017
SDS number	53111

SDS status	Approved.
Hazard statements in full	 H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
	H336 May cause drowsiness or dizziness.
Signature	Jitendra Panchal

Signature

18/18