SAFETY DATA SHEET QUANTUM BRAKE AND CLUTCH CLEANER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier	
Product name	QUANTUM BRAKE AND CLUTCH CLEANER
Product number	ZGB00QBC005L
Internal identification	B12911, MIS12209
Container size	1 Litre Cans to 25 Litre Drums
1.2. Relevant identified uses o	f the substance or mixture and uses advised against
Identified uses	Car maintenance product. Cleaning agent.
Uses advised against	This product is not recommended for any industrial, professional or consumer use other than the identified uses stated above.
1.3. Details of the supplier of the	ne safety data sheet
Supplier	Volkswagen Group United Kingdom Ltd Yeomans Drive Blakelands Milton Keynes MK14 5AN
	01908 601601
1.4. Emergency telephone nun	nber
Emergency telephone	Tel: +44 1604 701111 (Office Hours Monday - Friday (0900 Hrs - 1700 Hrs))
SECTION 2: Hazards identifica	- Alam
SECTION 2. Hazards identifica	
2.1. Classification of the substa	
2.1. Classification of the substa Classification (EC 1272/2008)	ance or mixture
2.1. Classification of the substa Classification (EC 1272/2008) Physical hazards	ance or mixture Flam. Liq. 2 - H225
2.1. Classification of the substa Classification (EC 1272/2008) Physical hazards Health hazards	<mark>ance or mixture</mark> Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336 Asp. Tox. 1 - H304
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2.1. Classification of the substa Classification (EC 1272/2008) Physical hazards Health hazards Environmental hazards	Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411 Vapours and spray/mists in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
2.1. Classification of the substa Classification (EC 1272/2008) Physical hazards Health hazards Environmental hazards Human health	Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411 Vapours and spray/mists in high concentrations are narcotic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting. Irritating to eyes. Repeated exposure may cause skin dryness or cracking.
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Signal word

Danger

Hazard statements	H225 Highly flammable liquid and vapour.
	H304 May be fatal if swallowed and enters airways.
	H315 Causes skin irritation.
	H319 Causes serious eye irritation.
	H336 May cause drowsiness or dizziness.
	H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P240 Ground and bond container and receiving equipment.
	P241 Use explosion-proof electrical equipment.
	P242 Use non-sparking tools.
	P243 Take action to prevent static discharges.
	P261 Avoid breathing vapour/ spray.
	P264 Wash contaminated skin thoroughly after handling.
	P271 Use only outdoors or in a well-ventilated area.
	P273 Avoid release to the environment.
	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
	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 or shower.
	P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.
	P312 Call a POISON CENTRE/doctor if you feel unwell.
	P321 Specific treatment (see medical advice on this label).
	P331 Do NOT induce vomiting.
	P332+P313 If skin irritation occurs: Get medical advice/ attention.
	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. P391 Collect spillage.
	P403+P233 Store in a well-ventilated place. Keep container tightly closed.
	P403+P235 Store in a well-ventilated place. Keep cool.
	P405 Store locked up.
	P501 Dispose of contents/ container in accordance with national regulations.
	P102 Keep out of reach of children.
Contains	NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT, PROPAN-2-OL
Detergent labelling	≥ 30% aliphatic hydrocarbons
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

NAPHTHA (PETROLEUM),	HIDROTREATED, LIGHT	60-100%
CAS number: 64742-49-0	REACH registration number: 01- 2119475514-35-XXXX	
Classification Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411		
PROPAN-2-OL		10-30%
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		
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 measu	res	
4.1. Description of first aid mo	easures	
General information	-	
Inhalation		and keep warm and at rest in a position son under observation. Get medical attention. personnel. Place unconscious person on their athing can take place. Get medical attention. personnel may assist affected person by
Ingestion	Show this Safety Data Sheet to the medical p	t medical attention if any discomfort continues. bersonnel. Place unconscious person on their athing can take place. If vomiting occurs, the hea
Skin contact	Remove affected person from source of cont immediately and wash skin with soap and wa continues.	_
Eye contact	Remove any contact lenses and open eyelids minutes. Get medical attention promptly if syn	
4.2. Most important symptom	s and effects, both acute and delayed	
General information	The severity of the symptoms described will v length of exposure.	vary dependent on the concentration and the

Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	Aspiration hazard if swallowed. The fluid can enter the lungs and cause damage (chemical pneumonitis, possibly fatal). Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. Nausea, vomiting.
Skin contact	Skin irritation.
Eye contact	May cause temporary eye irritation.
4.3. Indication of any immedia	te medical attention and special treatment needed
Notes for the doctor	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
SECTION 5: Firefighting measurements	sures
5.1. Extinguishing media	
Suitable extinguishing media	Extinguish with the following media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising fr	om the substance or mixture
Specific hazards	Heating may generate flammable vapours. Vapours may form explosive mixtures with air. Vapours may be ignited by a spark, a hot surface or an ember. Closed containers can burst violently when heated, due to excess pressure build-up. Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2). The product is highly flammable. Containers can burst violently or explode when heated, due to excessive pressure build-up. Vapours may form explosive mixtures with air.
5.3. Advice for firefighters	
Protective actions during firefighting	Be aware of danger of explosion. Move containers from fire area if it can be done without risk. Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material. Do not use water jet as an extinguisher, as this will spread the fire. Contain and collect extinguishing water. Avoid the spillage or runoff entering drains, sewers or watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

 Personal precautions
 Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

equipment is not available or not used, fight fire from a protected location or safe distance.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Contain spillage with sand, earth or other suitable non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See Section 12 for additional information on ecological hazards.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Use non sparking handtools and explosion-proof electric equipment. Absorb in vermiculite, dry sand or earth and place into containers. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. For waste disposal, see Section 13. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See Section 12 for additional information on ecological hazards.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Use non sparking handtools and explosion-proof electric equipment.
	Avoid spilling. Do not wear contact lenses. Avoid inhalation of vapours and spray/mists. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be
	prevented. Eye wash facilities and emergency shower must be available when handling this
	product. During application and drying, solvent vapours will be emitted. Vapours may
	accumulate on the floor and in low-lying areas. Contaminated rags and cloths must be put in
	fireproof containers for disposal. Avoid eating, drinking and smoking when using the product.
	Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air
	contamination is above an acceptable level. Do not use in confined spaces without adequate
	ventilation and/or respirator. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Avoid contact with oxidising agents. Earth container and transfer equipment to eliminate sparks from static electricity. Keep only in the original container.
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

NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT

Long-term exposure limit (8-hour TWA): WEL 1000 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 WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT (CAS: 64742-49-0)

DNEL	Industry - Dermal; Long term systemic effects: >300 mg/kg/day Industry - Inhalation; Long term systemic effects: >2035 mg/kg/day Consumer - Dermal; Long term systemic effects: >699 mg/kg/day Consumer - Oral; Long term systemic effects: >699 mg/kg/day Consumer - Inhalation; Long term systemic effects: >608 mg/m ³
PNEC	No PNEC available.
	PROPAN-2-OL (CAS: 67-63-0)
DNEL	Industry - Inhalation; Long term systemic effects: 500 mg/m ³ Consumer - Dermal; Long term systemic effects: 319 mg/kg/day Consumer - Oral; Long term systemic effects: 26 mg/kg/day Consumer - Inhalation; Long term systemic effects: 89 mg/m ³ Industry - Dermal; Long term systemic effects: 888 mg/kg/day
PNEC	 Fresh water; 140.9 mg/l Marine water; 140.9 mg/l Intermittent release; 140.9 mg/l Sediment (Freshwater); 552 mg/kg Sediment (Marinewater); 552 mg/kg STP; 2251 mg/l Soil; 28 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Eye/face protection

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. Use explosion-proof general and local exhaust ventilation.

Contact lenses should not be worn when working with this chemical. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection	Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Use gloves with insulation for thermal protection (EN 407), when needed. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl alcohol ("PVA"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Other skin and body protection	Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Provide eyewash station and safety shower.
Hygiene measures	Provide eyewash station. Wash promptly if skin becomes contaminated. Promptly remove non-impervious clothing that becomes contaminated. Do not eat, drink or smoke when using this product.
Respiratory protection	Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. Use CE approved air-purifying respirator with combination filter type A1P2 minimum.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties	
Appearance	Clear liquid.
Colour	Colourless.
Odour	Characteristic. Organic solvents. Hydrocarbons.
Initial boiling point and range	65°C to 95°C @ 760 mm Hg
Flash point	Below minus 15°C Closed cup.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.0 % Upper flammable/explosive limit: 12.0 %
Vapour pressure	12.5 kPa @ 20°C
Relative density	0.687g/ml @ 20°C
Solubility(ies)	Practically insoluble in Water. Some of the Isopropanol may partition into water.
Auto-ignition temperature	400°C

Viscosity	0.5 cSt @ 20°C
Comments	Information given is applicable to the product as supplied.
9.2. Other information	
Refractive index	1.378
Volatility	Highly volatile.
Volatile organic compound	This product contains a maximum VOC content of 687 g/l.
SECTION 10: Stability and re	activity
10.1. Reactivity	
Reactivity	There are no known reactivity hazards associated with this product.
10.2. Chemical stability	
Stability	No particular stability concerns. Stable at normal ambient temperatures and when used as recommended.
10.3. Possibility of hazardous	reactions
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Will not polymerise.
10.4. Conditions to avoid	
Conditions to avoid	Avoid heat, flames and other sources of ignition. Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5. Incompatible materials	
Materials to avoid	Strong oxidising agents.
10.6. Hazardous decompositi	on products
Hazardous decomposition products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
SECTION 11: Toxicological in	Iformation
11.1. Information on toxicolog	lical effects
Toxicological effects	This product has low toxicity. Only large quantities are likely to have adverse effects on human health.
Other health effects	There is no evidence that the product can cause cancer.
General information	To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated.
Inhalation	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing. Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
Ingestion	Gastrointestinal symptoms, including upset stomach. Pneumonia may be the result if vomited material containing solvents reaches the lungs.
Skin contact	Repeated exposure may cause skin dryness or cracking. Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking. May cause allergic contact eczema.

Eye contact

Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

Toxicological information on ingredients.

NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	5,841.0
Species	Rat
ATE oral (mg/kg)	5,841.0
Acute toxicity - dermal	
Acute toxicity dermal (LD₅ mg/kg)	2,921.0
Species	Rat
ATE dermal (mg/kg)	2,921.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC₅ vapours mg/l)	23.5
Species	Rat
ATE inhalation (vapours mg/l)	23.5
Skin corrosion/irritation	
Animal data	Irritating.
Serious eye damage/irritati	on
Serious eye damage/irritation	Not classified. May cause slight transient irritation.
Skin sensitisation	
Skin sensitisation	Not considered to be a skin sensitizer
Germ cell mutagenicity	
Genotoxicity - in vitro	Negative.
Genotoxicity - in vitro Genotoxicity - in vivo	Negative. Negative.
-	
Genotoxicity - in vivo	
Genotoxicity - in vivo Carcinogenicity	Negative. The current toxicological kowledge allows to not classify the product as a
Genotoxicity - in vivo Carcinogenicity Carcinogenicity	Negative. The current toxicological kowledge allows to not classify the product as a
Genotoxicity - in vivo Carcinogenicity Carcinogenicity Reproductive toxicity Reproductive toxicity -	Negative. The current toxicological kowledge allows to not classify the product as a carcinogen.

STOT - single exposure	No information available.
Specific target organ toxicit	y - repeated exposure
STOT - repeated exposure	No known effects based on information supplied.
Target organs	Central nervous system
Aspiration hazard	
Aspiration hazard	The fluid can enter the lungs and cause damage (chemical pneumonitis, possibly fatal).
Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	Avoid vomiting and stomach flushing because of the risk of aspiration. Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
Skin contact	Irritating to skin.
Eye contact	May cause temporary eye irritation.
	PROPAN-2-OL
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	5,840.0
Species	Rat Rat
Notes (oral LD₅₀)	
ATE oral (mg/kg)	5,840.0
Acute toxicity - dermal	
Acute toxicity dermal (LD₅₀ mg/kg)	16.4
Species	Rabbit Rabbit
ATE dermal (mg/kg)	12,874.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC∞ vapours mg/l)	25.5
Species	Rat
ATE inhalation (vapours mg/l)	25.5
Skin corrosion/irritation	
Animal data	Not irritating.
Serious eye damage/irritation	on
Serious eye damage/irritation	Rabbit eyes: Severe eye irritation.
Respiratory sensitisation	

	Respiratory sensit	tisation	Not available.
	Skin sensitisation		
	Skin sensitisation		Not considered to be a skin sensitizer
	Germ cell mutage	enicity	
	Genotoxicity - in v	/itro	Negative.
	Genotoxicity - in v	vivo	Negative.
	Reproductive toxic	city	
	Reproductive toxic fertility	city -	Does not interfere with fertility.
	Reproductive toxic development	city -	No evidence of reproductive toxicity in animal studies.
	Specific target org	gan toxicit	y - single exposure
	STOT - single exp	osure	Inhalation: May cause drowsiness and dizziness.
	Specific target org	gan toxicit	y - repeated exposure
STOT - repeated exposure		exposure	Oral and inhalation repeated exposure studies demonstrated target organ effects in male rats (kidney) and male/female mice (thyroid) by mechanisms of action that are not relevant to humans. Based on available data the classification criteria are not met.
	Aspiration hazard		
	Aspiration hazard		Aspiration hazard if swallowed. The fluid can enter the lungs and cause damage (chemical pneumonitis, possibly fatal).
	Inhalation		Drowsiness, dizziness, disorientation, vertigo.
	Ingestion		No specific health hazards known.
	Skin contact		No specific health hazards known.
	Eye contact		Irritating to eyes. Splashes in eyes may cause strong pain. Vapour acts as irritant.
	Acute and chronic hazards	c health	Small amounts of liquid aspirated into the respiritory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.
SECTION 12: Ecological Information			
Ecotoxicity		-	luct contains substances which are toxic to aquatic organisms and which may cause n adverse effects in the aquatic environment.
Ecological in	nformation on ingre	dients.	
			NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT
	Ecotoxicity		The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
12.1. Toxici	<u>y</u>		
Toxicity		-	luct contains a substance which is toxic to aquatic organisms and which may cause n adverse effects in the aquatic environment.
Ecological in	nformation on ingre	dients.	

NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT

Acute aquatic toxicity	
Acute toxicity - fish	LL₅₀, 96 hours: 11.4 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	LC₅₀, 48 hours: 3 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 72 hours: 10 mg/l, Freshwater algae
Chronic aquatic toxicity	
Chronic toxicity - fish early life stage	NOEC, 28 days: 1.534 mg/l, Oncorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 1 mg/l, Daphnia magna
	PROPAN-2-OL
Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC₅₀, 24 hours: 9714 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC₅₀, 72 hours: > 1000 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms	EC_{50} , : > 1000 mg/l, Activated sludge

Persistence and degradability The product is degraded completely by photochemical oxidation. Volatile substances are degraded in the atmosphere within a few days.

Ecological information on ingredients.

NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT

Persistence and degradability	The substance is readily biodegradable.
Biodegradation	- Degradation (%) 98: 28 days
	PROPAN-2-OL
Persistence and degradability	The product is expected to be biodegradable.
Biodegradation	Water - Degradation (%) 95%: 21 days
12.3. Bioaccumulative potential	
Bioaccumulative potential	The product contains potentially bioaccumulating substances. Accumulates in soil and

sediment.

Ecological information on ingredients.

NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT

	Bioaccumulative potential	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.	
		PROPAN-2-OL	
	Bioaccumulative potential	The product is not bioaccumulating.	
	Partition coefficient	log Pow: 0.05	
12.4. Mobil	ty in soil		
Mobility	surface	oduct contains substances which are insoluble in water and which may spread on water s. The product contains environmentally hazardous substances which are bound to ate matter and are retained in sediments.	
Ecological information on ingredients.			
		NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT	
	Mobility	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.	
		PROPAN-2-OL	
	Mobility	The product is soluble in water.	
	Adsorption/desorption coefficient	Water - Koc: ~ 1.1 @ °C	
	Henry's law constant	0.00000338 atm m3/mol @ 25°C	
12.5. Resul	ts of PBT and vPvB assess	ment	
Results of PBT and vPvBThis product does not contain any substances classified as PBT or vPvB.assessment			
Ecological i	nformation on ingredients.		
		NAPHTHA (PETROLEUM), HYDROTREATED, LIGHT	
	Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.	
		PROPAN-2-OL	
	Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.	
12.6. Other	adverse effects		
Other adve	rse effects Not app	blicable.	
SECTION ?	3: Disposal considerations		
13.1. Waste treatment methods			
General inf		should be treated as controlled waste. Dispose of waste to licensed waste disposal site rdance with the requirements of the local Waste Disposal Authority.	

Disposal methods	Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Containers should be thoroughly emptied before disposal because of the risk of an explosion.
Waste class	Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

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

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	- FLAMMABLE LIQUID, N.O.S. (NAPTHA (PETROLEUM), HYDROTREATED, LIGHT)	
Proper shipping name (IMDG)	FLAMMABLE LIQUID, N.O.S. (NAPTHA (PETROLEUM), HYDROTREATED, LIGHT)	
Proper shipping name (ICAO)	FLAMMABLE LIQUID, N.O.S. (NAPTHA (PETROLEUM), HYDROTREATED, LIGHT)	
Proper shipping name (ADN)	FLAMMABLE LIQUID, N.O.S. (NAPTHA (PETROLEUM), HYDROTREATED, LIGHT)	
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
ADN packing group	П
ICAO packing group	П

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

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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 accordi	ing to Annex II of MARPOL and the IBC Code
SECTION 15: Regulatory infor	mation
15.1. Safety, health and enviro	onmental regulations/legislation specific for the substance or mixture
National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). EH40/2005 Workplace exposure limits.
EU legislation	Dangerous Substances Directive 67/548/EEC. 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).
Guidance	Approved Classification and Labelling Guide (Sixth edition) L131. CHIP for everyone HSG228. Introduction to Local Exhaust Ventilation HS(G)37. Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	HS&E Manager.
Revision date	29/06/2018
Revision	5
Supersedes date	29/05/2015
SDS status	Approved.
Hazard statements in full	 H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H411 Toxic 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.