Gagekote 8

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878



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Date of issue: 15/07/2022 Date of First Issue: 29/04/2015 Version 3.0

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

1.1	Product identifier			
	Product Name	Gagekote 8		
	Product Code	Not applicable		
	Unique Formula Identifier (UFI)	Not applicable		
	Nanoform	The product does not contain nanopart	icles.	
1.2	Relevant identified uses of the substance or mixture and uses advised against			
	Identified Use(s)	Metal surface treatment products, inclu	ding galvanic and electroplating products	
	Uses Advised Against	Anything other than the above.		
1.3	Details of the supplier of the safety data sheet			
	Company Identification	VISHAY MEASUREMENTS GROUP UK LTD		
		Stroudley Road		
		Basingstoke		
		Hampshire		
		RG24 8FW		
		United Kingdom		
	Telephone	+44 (0) 1256 462131		
	Fax	+44 (0) 1256 471441		
	E-Mail (competent person)	mm.uk@vpgsensors.com		
1.4	Emergency telephone number			
	National Poisons Information Service (United Kingdom)	+44 (0) 3448 920111	24 hr. emergency phone number	
			Healthcare Professionals ONLY	
	NHS 24	111	Members of Public	
	Emergency Phone No.	(00-1) 703-527-3887	CHEMTREC (24 hours)	
	Languages spoken	All official European languages.		

SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification of the substance or mixture
2.1.1	Regulation (EC) No. 1272/2008 (CLP)

Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H336 Repr. 2; H361d STOT RE 2; H373 Aquatic Chronic 3; H412

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name

Hazard Pictogram(s)





Signal Word(s)

DANGER

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Contains:	Toluene and Methyl ethyl ketone
Hazard Statement(s)	 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. H361d: Suspected of damaging the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long lasting effects.
Precautionary Statement(s)	 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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 or doctor/physician. P331: Do NOT induce vomiting. P308+P313: IF exposed or concerned: Get medical advice/attention. P403+P235: Store in a well-ventilated place. Keep cool.
Supplemental information	None Known
Other hazards	Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances - Not applicable.

3.2 Mixtures

2.3

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
Toluene	45 - < 55	108-88-3	203-625-9	Not yet assigned in the supply chain	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Repr. 2; H361d STOT RE 2; H373 Aquatic Chronic 3; H412
Methyl ethyl ketone	10 - < 20	78-93-3	201-159-0	Not yet assigned in the supply chain	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066

Note: For full text of H phrases see section 16.

SECTION 4: FIRST AID MEASURES



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4.1	Description of first aid measures	
	Self-protection of the first aider	Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Do not breathe vapour. Avoid all contact. Avoid exposure during pregnancy.
	Inhalation	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Apply artificial respiration if breathing has ceased or shows signs of failing. Immediately call a POISON CENTER/doctor.
	Skin Contact	IF ON SKIN (or hair): After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention.
	Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops and persists, get medical attention.
	Ingestion	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs turn patient on side. Do not give milk or alcoholic beverages. Rinse mouth with water but do not swallow. Never give anything by mouth to an unconscious person.
4.2	Most important symptoms and effects, both acute and delayed	May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child Inhalation. May cause damage to organs through prolonged or repeated exposure: Central nervous system - Inhalation.
4.3	Indication of any immediate medical attention and special treatment needed	Treat symptomatically.
	Notes to a physician:	IF SWALLOWED: Consider use of charcoal as a slurry (240mL water/30 g charcoal). Usual dose: 25 to 100 g in adults. If determined necessary (and under qualified medical supervision), the stomach should be emptied by gastric lavage with the airway protected by endotracheal intubation.

SECTION 5: FIREFIGHTING MEASURES

5.1	Extinguishing media	
	Suitable Extinguishing media	As appropriate for surrounding fire. Extinguish preferably with foam, carbon
		dioxide or dry chemical.
	Unsuitable extinguishing media	Do not use water jet. Direct water jet may spread the fire.
5.2	Special hazards arising from the substance or mixture	Highly flammable liquid and vapour. May decompose in a fire giving off toxic
		fumes. Oxides of carbon and Nitrogen oxides. Vapours are heavier than air and
		may travel considerable distances to a source of ignition and flashback.
5.3	Advice for fire-fighters	Fire fighters should wear complete protective clothing including self-contained
		breathing apparatus. Do not breathe fumes. Keep containers cool by spraying
		with water if exposed to fire. Avoid run off to waterways and sewers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures	Avoid all contact. Do not ingest. If swallowed then seek immediate medical assistance. Use personal protective equipment as required. Do not breathe vapour. Ensure adequate ventilation. Remove all ignition sources. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Remove clothing and wash thoroughly before use. Isolate the area and allow vapours to disperse. In confined spaces, sewers, etc., the vapours may collect to form explosive mixtures with air.
6.2	Environmental precautions	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.
6.3	Methods and material for containment and cleaning up	Use non-sparking equipment when picking up flammable spill. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Ventilate the area and wash spill site after material pick-up is complete. Dispose of this material and its container as hazardous waste

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6.4 Reference to other sections See Section: 8, 13 SECTION 7: HANDLING AND STORAGE 7.1 Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take precautionary measures against static discharge. Do not use sparking tools. Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid all contact. Do not breathe vapour. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. 7.2 Conditions for safe storage, including any Ground/bond container and receiving equipment. Store in a well-ventilated place. incompatibilities Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. Storage temperature Ambient. 5 – 25 ℃ Storage life Stable under normal conditions. Incompatible materials Keep away from: Aerosol, flammable liquids, Oxidizing agents, corrosive substances, acids and alkalis 7.3 Specific end use(s) See Section: 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

United Kingdom

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Toulene	108-88-3	50	191	100	384	Sk
Butan-2-one (methyl ethyl ketone)	78-93-3	200	600	300	899	Sk, BMGV

Source: WEL: Workplace Exposure Limit (UK HSE EH40)

Notes:

Sk – Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

BMGV - Biological monitoring guidance value

Ireland

SUBSTANCE	CAS No.	•	posure Limit Value erence period)		Exposure Limit Value reference period)	Notes
		ppm	mg/m³	ppm	mg/m³	
Toulene	108-88-3	50	192	100	384	Sk, IOELV
Methyl ethyl ketone (MEK)	78-93-3	200	600	300	900	Sk, IOELV

Source: 2021 Code of Practice for Safety, Health and Welfare at Work (Chemical Agents) Regulation (2001 – 2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001 – 2019); Health and Safety Authority

Notes:

Sk: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into body. IOELV: Indicative Occupational Exposure Limit Value

8.1.2 Biological limit value

United Kingdom

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SUBSTA	NCE	CAS No.	Biological r	nonitoring guidance value	Sampling Time
Butan-2-one (Methyl ethy	Butan-2-one 78-93-3 70 µmol		l butan-2-one/L in Urine	Post shift	
Source: Bmgv:	Biological m	onitoring guidance	value (UK HSE EH4	0)	
8.1.3 PNEC	s and DNE	Ls		Not established.	
•			Ensure adequate ventilation. or Use appropriate containment. Atmospheric level should be controlled in compliance with the occupational exposure limit. Use no sparking ventilation systems, approved explosion-proof equipment, ar intrinsically safe electrical systems. General hygiene measures for the handling of chemicals are applicable. Avoid a contact. Do not breathe vapour. Wash hands before breaks and after work. Kee work clothes separately. Contaminated clothing should be thoroughly cleaned. If not eat, drink or smoke at the work place.		

	Eye/ face protection	Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).
	Skin protection	Hand protection:
		Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: PVC / Nitrile rubber.
		Body protection: Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
	Respiratory protection	Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A (EN141 or EN405) may be appropriate.
	Thermal hazards	Not applicable
2.3	Environmental exposure controls	Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information on basic physical and chemical properties				
	Physical state				
	Colour				
	Odour				
	Melting point and freezing point				
	Boiling point or initial boiling point and boiling range				

Liquid Colourless Aromatic. Not established 82.2 °C

8.2.

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Flammability Lower and upper explosion limit or lower and upper flammability limit Flash point Auto-ignition temperature Decomposition temperature pH Kinematic viscosity Solubility Partition coefficient: n-octanol/water (log value) Vapour pressure Density and/or relative density Relative vapour density Particle characteristics Highly flammable liquid and vapour. Flammable Limits (Lower) (%v/v): 1.6 (Air) Flammable Limits (Upper) (%v/v): 11.2 (Air) -1C [Closed cup] Not established Not established Not established <= 20,5 mm²/s (40 °C; Worst case assumption) Insoluble in water not applicable - Mixture 45.4 mmHg 0.88 g/cm³ (Water = 1) 4 (Air = 1) Not applicable (Liquid)

9.2 Other information

Evaporation rate VOC-value

SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Stable under normal conditions.
10.2	Chemical stability	Stable under normal conditions.
10.3	Possibility of hazardous reactions	Highly flammable liquid and vapour. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback.
10.4	Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. Do not use sparking tools.
10.5	Incompatible materials	Keep away from: Aerosol, Flammable liquid, Oxidizing agents, Corrosive Substances, Acids and Alkalis.
10.6	Hazardous decomposition product(s)	May decompose in a fire giving off toxic fumes. Combustion products: Carbon monoxide, Carbon dioxide and Nitrogen oxides.

592 g/l

3.62 (n-Butyl acetate = 1)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on hazard classes as defined in Regulation (EC) No 1272/2008 Acute toxicity		
	Ingestion		Mixture: Based upon the available data, the classification criteria are not met.
	·		Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg bw/day.
	Inhalation		Mixture: Based upon the available data, the classification criteria are not met.
			Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 20 mg/l. (Vapour)
	Skin Contact		Mixture: Based upon the available data, the classification criteria are not met.
			Acute Toxicity Estimate Mixture Calculation: Estimated LC50 > 2000 mg/kg
			bw/day.
	Skin corrosion/irritation		Mixture: Skin Irrit. 2: H315: Causes skin irritation.
		Toluene	Skin Irrit. 2: H315: Causes skin irritation.
			Irritating to skin. (Rabbit) (Regulation (EC) No. 440/2008, Annex B.4)
			Source: EU Harmonised Classification; ECHA registration dossier
	Serious eye damage/irritation		Mixture: Eye Irrit. 2: H319: Causes serious eye irritation.
	Methyl eth	nyl ketone	Eye Irrit. 2: H319: Causes serious eye irritation.
			Irritating to eyes. (Rabbit) (OECD 405)
			Source: EU Harmonised Classification; ECHA registration dossier
	Respiratory or skin sensitization		Mixture: Based upon the available data, the classification criteria are not met.
	Germ cell mutagenicity		Mixture: Based upon the available data, the classification criteria are not met.
	Carcinogenicity		Mixture: Based upon the available data, the classification criteria are not met.
	Reproductive toxicity		Mixture: Repr. 2; H361d: Suspected of damaging the unborn child. (inhalation)
		Toluene	Repr. 2; H361d: Suspected of damaging the unborn child. (inhalation)

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	STOT - single exposure STOT - repeated exposure		Developmental Toxicity: NOAEC= 600 ppm Source: EU Harmonised Classification; ECHA registration dossier Mixture: STOT SE 3: H336: May cause drowsiness or dizziness. STOT SE 3: H336: May cause drowsiness or dizziness. Chronic inhalation toxicity: NOAEC= 300 ppm (1131 mg/m3) Source: EU Harmonised Classification; ECHA registration dossier Mixture: STOT RE 2; H373: May cause damage to organs through prolonged or repeated exposure. STOT RE 2; H373: May cause damage to organs through prolonged or repeated exposure. Chronic inhalation toxicity: NOAEC= 300 ppm (1131 mg/m3)
		Methyl ethyl ketone	Source: EU Harmonised Classification; ECHA registration dossier STOT SE 3: H336: May cause drowsiness or dizziness. Subchronic Inhalation Toxicity: NOAEC= 5014 ppm (OECD 413)
	Aspiration hazard	Toluene	Source: EU Harmonised Classification; ECHA registration dossier Mixture: Asp. Tox. 1: May be fatal if swallowed and enters airways. Asp. Tox. 1: May be fatal if swallowed and enters airways. Kinematic Viscosity: 0.56 mPa s (20 ℃) Source: EU Harmonised Classification; ECHA registration dossier
11.2	Information on other hazards		
11.2.1	Endocrine disrupting properties		This product does not contain a substance that has endocrine disrupting
			properties with respect to humans as no components meets the criteria.
11.2.2	Other information		None
SECTIO	N 12: ECOLOGICAL INFOR	MATION	
12.1	Toxicity	Toluene	Mixture: Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects. Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.
			LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae)
12.2	Persistence and degradability		LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae)
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12.2	Persistence and degradability	Toluene	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable.
		Toluene	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier
12.2	Persistence and degradability Bioaccumulative potential	Toluene Methyl ethyl ketone	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation.
		Toluene Methyl ethyl ketone	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier
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		Toluene Methyl ethyl ketone Toluene	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 1.34 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation. The substance has low potential for bioaccumulation. Bioconcentration factor (BCF) = 90. Log KOW = 2.73
		Toluene Methyl ethyl ketone Toluene	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation. The substance has low potential for bioaccumulation. Bioconcentration factor (BCF) = 90. Log KOW = 2.73 Source: ECHA registration dossier The substance has low potential for bioaccumulation. Low partition coefficient n- octanol/water
12.3	Bioaccumulative potential	Toluene Methyl ethyl ketone Toluene	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation. The substance has low potential for bioaccumulation. Bioconcentration factor (BCF) = 90. Log KOW = 2.73 Source: ECHA registration dossier The substance has low potential for bioaccumulation. Low partition coefficient n- octanol/water Source: ECHA registration dossier
		Toluene Methyl ethyl ketone Toluene	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation. The substance has low potential for bioaccumulation. Bioconcentration factor (BCF) = 90. Log KOW = 2.73 Source: ECHA registration dossier The substance has low potential for bioaccumulation. Low partition coefficient n- octanol/water Source: ECHA registration dossier The product is predicted to have low mobility in soil. (The product is essentially
12.3	Bioaccumulative potential	Toluene Methyl ethyl ketone Toluene Methyl ethyl ketone	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation. The substance has low potential for bioaccumulation. Bioconcentration factor (BCF) = 90. Log KOW = 2.73 Source: ECHA registration dossier The substance has low potential for bioaccumulation. Low partition coefficient n- octanol/water Source: ECHA registration dossier
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12.3	Bioaccumulative potential	Toluene Methyl ethyl ketone Toluene Methyl ethyl ketone Toluene Methyl ethyl ketone	LC50 (96 hour) = 5.5 mg/L (Fish) NOEC (40day) = 1.4 mg/L (Fish) EC50 (48 hour) = 3.78 mg/L (Aquatic invertebrates) NOEC (7day) = 0.74 mg/L (Aquatic invertebrates) EC50 (3 hour) = 134 mg/L (Algae) NOEC (72 hour) = 10 mg/L (Algae) Source: ECHA registration dossier No data for the mixture as a whole. Readily biodegradable. Source: ECHA registration dossier Readily biodegradable. Source: ECHA registration dossier The product has low potential for bioaccumulation. The substance has low potential for bioaccumulation. Bioconcentration factor (BCF) = 90. Log KOW = 2.73 Source: ECHA registration dossier The substance has low potential for bioaccumulation. Low partition coefficient n- octanol/water Source: ECHA registration dossier The product is predicted to have low mobility in soil. (The product is essentially insoluble in water.) Adsorption to solid soil phase is not expected. Koc (20 °C) = 205 Log KOW = 2.73 Source: ECHA registration dossier Adsorption to solid soil phase is not expected. Low partition coefficient n-

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12.6	Endocrine disrupting properties	This product does not contain a substance that has endocrine disrupting
		properties with respect to non-target organisms as no components meets the
12.7	Other adverse effects	criteria. None known
12.7		None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste classification according to Directive 2008/98/EC (Waste Framework Directive)

This material and its container must be disposed of as hazardous waste. Dispose of wastes in an approved waste disposal facility. HP 3 Flammable HP 4 Irritant - skin irritation and eye damage HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity HP 10 Toxic for reproduction HP 14 Ecotoxic Dispose of contents in accordance with local, state or national legislation.

13.2 Additional Information

SECTION 14: TRANSPORT INFORMATION

		ADR/RID	ADN	IMDG	IATA/ICAO
14.1	UN number or ID number	1263	1263	1263	1263
14.2	UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3	Transport hazard class(es)	3	3	3	3
14.4	Packing group	II	II	II	II
14.5	Environmental hazards	Not classified	Not classified	Not classified as a Marine Pollutant.	Not classified
14.6	Special precautions for user	See Section: 2			
14.7	Maritime transport in bulk according to IMO instruments	No information available.			
14.8	Additional Information	No information available.			

SECTION 15: REGULATORY INFORMATION

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

15.1.1 EU regulations

Use restriction according to REACH annex XVII, no.: Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive] Directive 2010/75/EU on industrial emissions

3

P5c Flammable liquids

Solvent VOC-value:

VOC-value %W/W	Temperature	Method
55 - < 70	20 °C	calculated

CMR Substances or halogenated hydrocarbons VOC-value:

	VOC-value %W/W	Components	CAS No.		
	45 - < 55	Toluene	108-88-3		
Restrictions of occupation: 0	Observe restrictions to employment for juvenils according to the 'juvenile work				
ţ	protection guideline' (94/33/EC).				
(Observe employment restric	tions under the Maternity	Protection Directive		
(92/85/EEC) for expectant o	r nursing mothers.			
	Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of				
v	vorkers from the risks relate	ed to chemical agents at w	ork		

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15.1.2 National regulations

United Kingdom

UK - GB CLP Mandatory classification and labelling list

	Methyl ethyl ketone: listed
UK REACH - Annex XVII (Restrictions)	Toluene: listed (Entry: 40; 48)
	Methyl ethyl ketone: listed (Entry: 40; 75)
UK REACH – Grandfathered registrations notified	Toluene: listed
substances list	Methyl ethyl ketone: listed
Poisons Act	All chemicals are not listed
Ireland	
S.I. No. 619/2001	All chemicals are not listed
Germany	
Water hazard class (WGK)	strongly hazardous to water (WGK 3)
Chemical Safety Assessment	A REACH chemical safety assessment has not been carried out.

Toluene: listed

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Updated substance / mixture classification. New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

References:

15.2

Existing Safety Data Sheet (SDS), Harmonised Classification(s) for Methyl ethyl ketone (CAS No. 78-93-3) and Toluene (CAS No. 108-88-3). Existing ECHA registration(s) for Methyl ethyl ketone (CAS No. 78-93-3) and Toluene (CAS No. 108-88-3).

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Flam. Liq. 2; H225	Experimental data
Asp. Tox. 1; H304	Expert judgement / Worst case assumption
Skin Irrit. 2; H315	Threshold Calculation
Eye Irrit. 2; H319	Threshold Calculation
STOT SE 3; H336	Threshold Calculation
Repr. 2; H361d	Threshold Calculation
STOT RE 2; H373	Threshold Calculation
Aquatic Chronic 3; H412	Summation Calculation

LEGEND

ADR ADN	European Agreement concerning the International Carriage of Dangerous Goods by Road European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EU	European Union
EC	European Community
ECHA	European Chemicals Agency
EN	European Standard
EC50	Effect concentration; 50 %
EL50	Effective loading rate; 50 %
GB	Great Britain
HSE	Health and Safety Executive
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC50	Lethal concentration at which 50% of the population is killed

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LD50	Lethal dose at which 50% of the population is kill	od		
LTEL	Long term exposure limit			
NOAEC	No observed adverse effect concentration			
NOEC				
	No Observed Effect Concentration			
OECD	Organisation for Economic Cooperation and Dev	elopment		
PBT	Persistent, Bioaccumulative and Toxic			
PNEC	Predicted No Effect Concentration			
REACH	Registration, Evaluation, Authorisation and Restr			
RID	Regulations concerning the International Carriage	e of Dangerous Goods by Rail		
TWA	Time Weighted Average			
STEL	Short term exposure limit			
vPvB	very Persistent and very Bioaccumulative			
UK	United Kingdom			
UN	United Nations			
VOC	Volatile organic compounds			
Hazard classification /	Classification code:	Hazard Statement(s)		
Flam. Liq. 2; Flammable	Liquid Category 2	H225: Highly flammable liquid and vapour.		
Asp. Tox. 1; Aspiration Toxicity Category 1		H304: May be fatal if swallowed and enters airways.		
Skin Irrit. 2; Skin Irritation Category 2		H315: Causes skin irritation.		
Eye Irrit. 2; Eye Irritation	Category 2	H319: Causes serious eye irritation.		
STOT SE 3; Specific target organ toxicity — single exposure Category 3		H336: May cause drowsiness or dizziness.		
Repr. 2; Reproductive toxicity Category 2		H361d: Suspected of damaging the unborn child.		
STOT RE 2; Specific tar	get organ toxicity — repeated exposure Category	H373: May cause damage to organs through prolonged or repeated		
2		exposure.		

Aquatic Chronic 3; Hazardous to the aquatic environment, Chronic, Category 3

EUH066: Repeated exposure may cause skin dryness or cracking.

H412: Harmful to aquatic life with long lasting effects.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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