SAFETY DATA SHEET HEMEL Marine Universal Stain

Commission Regulation (EU) No 2015/830 of 28 May 2015.

SECTION 1: Identification of	the substance/mixture and of the company/undertaking	
1.1. Product identifier		
Product name	HEMEL Marine Universal Stain	
1.2. Relevant identified uses	of the substance or mixture and uses advised against	
Identified uses	Decorative effect coatings.	
Uses advised against	No specific uses advised against are identified.	
1.3. Details of the supplier of the safety data sheet		
Supplier	Hemel Emprenye Sanayi ve Tic. A.Ş. Adres: İ.D.O.S.B. Vakum Cd. No:25 B-1 Özel Parsel Tuzla/İstanbul/Turkey Tel: +90 444 98 48 Fax: +90 (216) 394 83 10 hakan.milli@hemel.com.tr	
1.4. Emergency telephone number		
Emergency telephone	HEMEL: +90 444 98 48	
SECTION 2: Hazards identifi	ication	
2.1. Classification of the subs	stance or mixture	
Classification (EC 1272/2008	<u>3)</u>	
Physical hazards	Not Classified	
Health hazards	Not Classified	
Environmental hazards	Aquatic Chronic 3 - H412	
2.2. Label elements		
Hazard statements	EUH208 Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol, 3-iodo-2-propynyl butylcarbamate, Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl- 2H -isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction. H412 Harmful to aquatic life with long lasting effects.	
Precautionary statements	P273 Avoid release to the environment. 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		
1,2-Propylene glycol	1-5%	
CAS number: 57-55-6	EC number: 200-338-0	
Classification		

Classification Not Classified

Ethanol	1-2%
CAS number: 64-17-5	EC number: 200-578-6
Classification Flam. Liq. 2 - H225	
(2-methoxymethylethoxy)propanol	<1%
CAS number: 34590-94-8	EC number: 252-104-2
Classification Not Classified	
Amines, tallow alkyl, ethoxylated	<1%
CAS number: 61791-26-2	
M factor (Chronic) = 1	
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 1 - H410	
2-butoxyethanol	<1%
CAS number: 111-76-2	EC number: 203-905-0
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	
2,4,7,9-tetramethyldec-5-yne-4,7-diol	<1%
CAS number: 126-86-3	EC number: 204-809-1
Classification Eye Dam. 1 - H318 Skin Sens. 1B - H317 Aquatic Chronic 3 - H412	

3-iodo-2-propynyl butylcarbamate		<1%
CAS number: 55406-53-6	EC number: 259-627-5	
M factor (Acute) = 10	M factor (Chronic) = 1	
Classification		
Acute Tox. 4 - H302		
Acute Tox. 3 - H331		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
STOT RE 1 - H372		
Aquatic Acute 1 - H400		
Aquatic Chronic 1 - H410		
propan-2-ol (Isopropyl alcohol)		<1%
CAS number: 67-63-0	EC number: 200-661-7	
Flam. Liq. 2 - H225		
Eye Irrit. 2 - H319 STOT SE 3 - H336		
Kaolin		<1%
CAS number: 1332-58-7	EC number: 310-194-1	
Classification		
Not Classified		
Reaction mass of: 5-chloro-2-methy		<1%
no. 247-500-7]; and 2-methyl-2H -is 220-239-6] (3:1)	otniazoi-3-one [EC no.	
CAS number: 55965-84-9		
M factor (Acute) = 100	M factor (Chronic) = 100	
	T/MIT: Skin Corr. 1B; H314: C ≥ 0,6 %, Skin Irrit. 2; H315: 0,06 % ≤ C < 0,6 %,	Evo Irrit
2; H319: 0,06 % ≤ C < 0,6 %, Skin \$		Lye int.
Classification		
Acute Tox. 3 - H301		
Acute Tox. 2 - H310		
Acute Tox. 2 - H330		
Skin Corr. 1C - H314		
Eye Dam. 1 - H318		
Skin Sens. 1A - H317 Aquatic Acute 1 - H400		
Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The full text for all hazard statements is displayed in Section 16.

Composition comments See section 8 for workplace exposure limits.

SECTION 4: First aid measures

4.1. Description of first aid measures		
General information	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.	
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.	
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.	
Skin contact	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of 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 10 minutes.	
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.	
4.2. Most important symptoms	and effects, both acute and delayed	
General information	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.	
Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.	
Skin contact	Prolonged contact may cause dryness of the skin.	
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.	
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	The product is not flammable. Extinguish with foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
5.2. Special hazards arising from the substance or mixture		
Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.	
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.	

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautionsNo action shall be taken without appropriate training or involving any personal risk. Keep
unnecessary and unprotected personnel away from the spillage. Wear protective clothing as
described in Section 8 of this safety data sheet. Follow precautions for safe handling
described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure
procedures and training for emergency decontamination and disposal are in place. Do not
touch or walk into spilled material.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind.
	Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up.
	Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and
	place it in a suitable waste disposal container.
	Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an
	effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth
	or other non-combustible material. Place waste in labelled, sealed containers. Clean
	contaminated objects and areas thoroughly, observing environmental regulations. Flush
	contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.
	Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions
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Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment.

Advice on general
occupational hygieneWash promptly if skin becomes contaminated. Take off contaminated clothing. Do not eat,
drink or smoke when using this product. Wash at the end of each work shift and before eating,
smoking and using the toilet. Change work clothing daily before leaving workplace.7.2. Conditions for safe storage, including any incompatibilitiesStorage precautionsStore away from incompatible materials (see Section 10). Store in accordance with local
regulations. Keep only in the original container. Keep container tightly closed, in a cool, well
ventilated place. Keep containers upright. Protect containers from damage. Bund storage
facilities to prevent soil and water pollution in the event of spillage. The storage area floor
should be leak-tight, jointless and not absorbent.

Storage class Miscellaneous hazardous material 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

1,2-Propylene glycol

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate Long-term exposure limit (8-hour TWA): WEL 150 ppm 474 mg/m³ total vapour and particulates

Ethanol

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

(2-methoxymethylethoxy)propanol

Long-term exposure limit (8-hour TWA): 308 mg/m³ 50 ppm

2-butoxyethanol

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m³ Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m³ Sk

propan-2-ol (Isopropyl alcohol)

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

Kaolin

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³ inhalable fraction Long-term exposure limit (8-hour TWA): 15 mg/m³ Total dust WEL = Workplace Exposure Limit Sk = Can be absorbed through the skin.

Ethanol (CAS: 64-17-5)

DNEL

Workers - Inhalation; : 1900 mg/m³
Workers - Dermal; Long term systemic effects: 343 mg/kg/day
Workers - Inhalation; Long term systemic effects: 950 mg/m³
General population - Inhalation; : 950 mg/m³
General population - Dermal; Long term systemic effects: 206 mg/kg/day
General population - Inhalation; Long term systemic effects: 114 mg/m³
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 Sediment (Freshwater); 3,6 mg/kg Sediment (Marinewater); 2,9 mg/kg
	2-butoxyethanol (CAS: 111-76-2)
DNEL	Consumer - Oral; Long term systemic effects: 3,2 mg/kg Consumer - Inhalation; Long term systemic effects: 49 mg/m ³ Consumer - Dermal; Long term systemic effects: 38 mg/kg Workers - Inhalation; Long term systemic effects: 98 mg/m ³ Workers - Dermal; Long term systemic effects: 75 mg/kg
PNEC	 Fresh water; 88 mg/l marine water; 88 mg/l Sediment (Freshwater); 34,6 mg/kg Sediment (Marinewater); 3,46 mg/kg Intermittent release; 91 mg/l STP; 463 mg/l propan-2-ol (Isopropyl alcohol) (CAS: 67-63-0)
DNEL	Workers - Dermal; Long term systemic effects: 888 mg/kg/day Workers - Inhalation; Long term systemic effects: 500 mg/m ³ General population - Oral; Long term systemic effects: 26 mg/kg/day General population - Dermal; Long term systemic effects: 319 mg/kg/day General population - Inhalation; Long term systemic effects: 89 mg/m ³
PNEC	Fresh water; 140.9 mg/l marine water; 140.9 mg/l Sediment (Marinewater); 552 mg/kg Sediment (Freshwater); 552 mg/kg Soil; 28 mg/kg STP; 2251 mg/l Intermittent release; 140,9 mg/l Oral; 160 g/kg

8.2. Exposure controls

Protective equipment





Appropriate engineering controls Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure.

Eye/face protectionEyewear complying with an approved standard should be worn if a risk assessment indicates
eye contact is possible. Personal protective equipment for eye and face protection should
comply with European Standard EN166. Unless the assessment indicates a higher degree of
protection is required, the following protection should be worn: Tight-fitting safety glasses.

Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. 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. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. 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. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN1436. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
Environmental exposure controls	Keep container tightly sealed when not in use. 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	Liquid.
Colour	No information available.
Odour	Characteristic.
рН	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	>60°C
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Solubility(ies)	No information available.
Viscosity	No information available.
Explosive properties	No information available.

Oxidising properties	No information available.	
9.2. Other information		
Other information	No information required.	
SECTION 10: Stability and reactivity		
10.1. Reactivity		
Reactivity	See the other subsections of this section for further details.	
10.2. Chemical stability		
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.	
10.3. Possibility of hazardous	reactions	
Possibility of hazardous reactions	No potentially hazardous reactions known.	
10.4. Conditions to avoid		
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.	
10.5. Incompatible materials		
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.	
10.6. Hazardous decomposition products		
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.	
SECTION 11: Toxicological int	formation	
11.1. Information on toxicologi	cal effects	
Acute toxicity - oral Notes (oral LD∞)	Based on available data the classification criteria are not met.	
Acute toxicity - dermal Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.	
Acute toxicity - inhalation Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.	
ATE inhalation (dusts/mists mg/l)	312.5	
Skin corrosion/irritation Skin corrosion/irritation	Based on available data the classification criteria are not met.	
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.	
Respiratory sensitisation Respiratory sensitisation	Based on available data the classification criteria are not met.	
Skin sensitisation Skin sensitisation	Based on available data the classification criteria are not met.	

Genotoxicity - in vitro <u>Carcinogenicity</u>	Based on available data the classification criteria are not met.	
Carcinogenicity IARC carcinogenicity	Based on available data the classification criteria are not met. Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable	
	as to its carcinogenicity to humans.	
Reproductive toxicity		
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	
Reproductive toxicity - development	Based on available data the classification criteria are not met.	
Specific target organ toxicity -	single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxicity - repeated exposure		
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard		
Aspiration hazard	Based on available data the classification criteria are not met.	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	Prolonged inhalation of high concentrations may damage respiratory system.	
Ingestion	Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.	
Skin contact	Prolonged contact may cause dryness of the skin.	
Eye contact	May cause temporary eye irritation.	
Route of exposure	Ingestion Inhalation Skin and/or eye contact	
Target organs	No specific target organs known.	
Toxicological information on in	aradiante	

Toxicological information on ingredients.

Ethanol

Acute toxicity - oral	
Notes (oral LD₅₀)	LD₅₀ 6200 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ 7060 mg/kg, Dermal, Rabbit
Acute toxicity - inhalation	,,, _,, _
Acute toxicity inhalation	30.000.0
(LC₅₀ dust/mist mg/l)	30,000.0
Notes (inhalation LC ₅₀)	LC50 124,7 mg/l, Inhalation, Rat
ATE inhalation (dusts/mists mg/l)	30,000.0

Amines, tallow alkyl, ethoxylated

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	1,315.0
Species	Rat
ATE oral (mg/kg)	1,315.0
	2-butoxyethanol
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	1,414.0
Species	Rat
Notes (oral LD₅₀)	615 mg/kg, Oral, Rat
ATE oral (mg/kg)	1,414.0
Acute toxicity - dermal	
Notes (dermal LD₅₀)	405 mg/kg, Dermal, Rabbit
ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
Notes (inhalation LC₅₀)	2,2 mg/l, Inhalation, Rat
ATE inhalation (vapours mg/l)	11.0
Carcinogenicity	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
	3-iodo-2-propynyl butylcarbamate
Acute toxicity - oral	
ATE oral (mg/kg)	500.0
Acute toxicity - inhalation	
ATE inhalation (dusts/mists mg/l)	0.5
	propan-2-ol (Isopropyl alcohol)
Acute toxicity - oral	
Notes (oral LD₅₀)	LD₅₀ 5280 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD₅₀)	LD₅₀ 12800 mg/kg, Dermal, Rabbit
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LC50 72.6 mg/l, Inhalation, Rat
Carcinogenicity	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

ammonia, anhydrous

		ammonia, anhydrous	
	Acute toxicity - inhalation		
	ATE inhalation (gases ppm)	700.0	
	Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one		
	[EC no. 220-239-6] (3:1)		
	Acute toxicity - oral		
	ATE oral (mg/kg) 100.0		
	Acute toxicity - dermal		
	ATE dermal (mg/kg)	50.0	
	Acute toxicity - inhalation		
	ATE inhalation (vapours mg/l)	0.5	
SECTION '	12: Ecological information		
12.1. Toxic	ity		
Toxicity	Aquatic	Chronic 3 - H412 Harmful to aquatic life with long lasting effects.	
Ecological	information on ingredients.		
		Ethanol	
	Acute aquatic toxicity		
	Acute toxicity - fish	LC₅₀, 24 hours: 11200 mg/l, Oncorhynchus mykiss (Rainbow trout) LC₅₀, 96 hour: 13.000 mg/l, Fish	
	Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 5012 mg/l, Ceriodaphnia dubia EC₅₀, 48 hour: 9.300 mg/l, Daphnia magna	
	Acute toxicity - aquatic plants	EC₅₀, 72 hours: 275 mg/l, Chlorella pyrenoidosa EC₅₀, 72 hour: 5.000 mg/l, Algae	
	Acute toxicity - microorganisms	EC₅₀, 4 hours: 5,8 g/l, Paramaecium caudatum	
	Acute toxicity - terrestrial	LC₅₀, 48 hours: 0,1-1 mg/cm², Eisenia Fetida (Earthworm)	
		Amines, tallow alkyl, ethoxylated	
	Chronic aquatic toxicity		
	M factor (Chronic)	1	
		2-butoxyethanol	
	Acute aquatic toxicity		
	Acute toxicity - fish	LC₅₀, 96 hour: 1474 mg/l, Oncorhynchus mykiss (Rainbow trout)	
	Acute toxicity - aquatic invertebrates	EC₅₀, 48 hour: 1550 mg/l, Daphnia magna	
	Acute toxicity - aquatic plants	EC₅₀, 72 hour: 911 mg/l, Pseudokirchneriella subcapitata	

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3-iodo-2-propynyl butylcarbamate

Acute aquatic toxicity	
LE(C)50	0.01 < L(E)C50 ≤ 0.1
M factor (Acute)	10
Acute toxicity - fish	LC₅₀, 96 hour: 0.43 mg/l, Brachydanio rerio (Zebra Fish)
	LC₀, 96 hour: 0.26 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	CE50, 48 hour: 0.21 mg/l, Daphnia magna CE0, 48 hour: 0.11 mg/l, Daphnia magna
Acute toxicity - aquatic plants	CE50, 72 hour: 0.01 mg/l, Scenedesmus subspicatus
	CE0, 72 hour: 0.026 mg/l, Scenedesmus subspicatus
Chronic aquatic toxicity	
M factor (Chronic)	1
	propan-2-ol (Isopropyl alcohol)
Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 96 hours: 11130 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 96 hours: > 1400000 ug/L, Lepomis macrochirus (Bluegill) LC₅₀, 96 hour: 4.200 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 13299 mg/l, Daphnia magna EC₅₀, 72 hour: 1000 mg/l, Scenedesmus subspicatus
Acute toxicity - aquatic plants	IC₅₀, 72 hours: >1000 mg/l, Desmodesmus subspicatus IC₅₀, 96 hour: 1.000 mg/l, Algae
Acute toxicity - microorganisms	EC10, 16 hour: 5.175 mg/l, Bacteria
	ammonia, anhydrous
Acute aquatic toxicity	
LE(C)50	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Reaction mass of: 5-chloro	-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one
	[EC no. 220-239-6] (3:1)
Acute aquatic toxicity	
LE(C)50	$0.001 < L(E)C50 \le 0.01$
M factor (Acute)	100
Acute toxicity - fish	LC₅₀, 96 hour: 0.22 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hour: 0.12 mg/l, Daphnia magna
Chronic aquatic toxicity	
M factor (Chronic)	100

NOEC-Aquatic
Invertebrates

0.035 mg/l (Daphnia sp.)

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Ethanol

Persistence and	The substance is readily biodegradable.
degradability	

propan-2-ol (Isopropyl alcohol)

Biodegradation	- 78 %: 28 day
Biological oxygen demand	1,19 g O₂/g substance
Chemical oxygen demand	2,23 g O₂/g substance

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

Ethanol

	Partition coefficie	nt	log Kow: -0,31
			(2-methoxymethylethoxy)propanol
	Partition coefficie	nt	log Pow: 0.004 Low potential.
			propan-2-ol (Isopropyl alcohol)
	Partition coefficie	nt	log Pow: 0.05
	Bioconcentration (BCF)	factor	3
12.4. Mobilit	y in soil		
Mobility		No data	available.
12.5. Results of PBT and vPvB assessment			
Results of P assessment	BT and vPvB	This pro	duct does not contain any substances classified as PBT or vPvB.
12.6. Other a	adverse effects		
Other advers	se effects	None kr	iown.

SECTION 13: Disposal considerations

13.1. Waste treatment me	ethods
General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. 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. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.
SECTION 14: Transport i	nformation

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

SECTION 15: Regulatory information

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

National regulationsHealth and Safety at Work etc. Act 1974 (as amended).
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EH40/2005 Workplace exposure limits.

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

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
acca in the callety add choot	ADN: European Agreement concerning the International Carriage of Dangerous Goods by
	Inland Waterways. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
	IATA: International Air Transport Association.
	ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods.
	CAS: Chemical Abstracts Service.
	ATE: Acute Toxicity Estimate.
	LC₅₀: Lethal Concentration to 50 % of a test population.
	LD ₅₀ : Lethal Dose to 50% of a test population (Median Lethal Dose).
	EC ₅₀ : 50% of maximal Effective Concentration.
	PBT: Persistent, Bioaccumulative and Toxic substance.
	vPvB: Very Persistent and Very Bioaccumulative.
Classification abbreviations and acronyms	Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Key literature references and	This SDS is prepared based on the information received from the product owner.
sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Classification procedures according to Regulation (EC) 1272/2008	Aquatic Chronic 3 - H412: : Calculation method.
Training advice	Read and follow manufacturer's recommendations. Only trained personnel should use this material.
Revision comments	This is the first issue.
Issued by	Hakan Milli hakan.milli@hemel.com.tr
Note to organizer	The certificate information is used exclusively for this SDS. No changes can be made to this SDS without the knowledge and approval of the certificate holder or the certificate information can not be used for another SDS. Otherwise, the certificate will assume no responsibility for the owner SDS.

Revision	0.1
Supersedes date	25/06/2020
SDS number	18704
Hazard statements in full	 H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H302 Harmful if swallowed. H310 Fatal in contact with skin. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye damage. H319 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H332 Harmful if inhaled. H332 Harmful if inhaled. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness. H372 Causes damage to organs (Larynx) through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. EUH208 Contains 2,4,7,9-tetramethyldec-5-yne-4,7-diol, 3-iodo-2-propynyl butylcarbamate, Reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]; and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

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.