

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

1.1. Product identifier

Product form	: Mixture
Product name	: ML 55 Application Fluid (WP 1103)
Product code	: WP 1103
Type of product	: Preparation based on solvents and surfactants
Product group	: Blend

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec	: Industrial For professional use only
Use of the substance/mixture	: Air bubble free positioning of signs and graphics

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Wessex Chemical Factors Ltd
9 Crane Way, Woolsbridge Industrial Park,
Three Legged Cross, Wimborne, Dorset
BH21 6FA - United Kingdom
T +44 (0) 1202 823 699 - F +44 (0) 1202 813 863
www.wessexchemicalfactors.co.uk
E-mail address of competent person responsible for the SDS : info@wessexchemicalfactors.co.uk

1.4. Emergency telephone number

Emergency number	: +44 (0) 1202 823 699 (Office hours only 9am - 5pm Monday - Thursday, 9am - 4pm Friday.) +44 (0) 7973629367 (Out of hours emergency number)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Serious eye damage/eye irritation, Category 2	H319
Full text of H statements : see section 16	

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes serious eye irritation.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H226 - Flammable liquid and vapour.
H319 - Causes serious eye irritation.

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Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P264 - Wash hands thoroughly after handling.
P280 - Wear eye protection, protective gloves.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P370+P378 - In case of fire: Use carbon dioxide (CO₂), alcohol resistant foam, dry extinguishing powder to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol; ethyl alcohol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	>= 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X (REACH-no) 01-2119433307-44-XXXX	1 - 3	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:dust,mist), H331 STOT SE 1, H370
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., sodium salts	(CAS-No.) 127184-52-5 (EC-No.) 603-187-2	< 0.1	Acute Tox. 4 (Oral), H302
alcohols, C12-14, ethoxylated (1-2.5 EO), sulphates, sodium salts <10%	(CAS-No.) 68891-38-3 (EC-No.) 500-234-8 (REACH-no) 01-2119488639-16	< 0.1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412
Amides, C8-18 (even-numbered) and C18 (unsatd.), N,N-bis(hydroxyethyl)	(CAS-No.) 68155-07-7 (EC-No.) 931-329-6 (REACH-no) 01-2119490100-53-XXXX	< 0.1	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
glycerol	(CAS-No.) 56-81-5 (EC-No.) 200-289-5 (REACH-no) 01-2119471987-18	< 0.1	Not classified
2,2'-iminodiethanol; diethanolamine	(CAS-No.) 111-42-2 (EC-No.) 203-868-0 (EC Index-No.) 603-071-00-1 (REACH-no) 01-2119488930-28	< 0.1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Chronic 3, H412
formaldehyde ...% (Note B)(Note D)	(CAS-No.) 50-00-0 (EC-No.) 200-001-8 (EC Index-No.) 605-001-00-5 (REACH-no) 01-2119488953-20-XXXX	< 0.1	Carc. 1B, H350 Muta. 2, H341 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317
Citrella		< 0.1	Not classified
green dye		< 0.1	Not classified
Fluoresciene dye		< 0.1	Not classified

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits
methanol	(CAS-No.) 67-56-1 (EC-No.) 200-659-6 (EC Index-No.) 603-001-00-X (REACH-no) 01-2119433307-44-XXXX	(3 =<C < 10) STOT SE 2, H371 (10 =<C < 100) STOT SE 1, H370
formaldehyde ...%	(CAS-No.) 50-00-0 (EC-No.) 200-001-8 (EC Index-No.) 605-001-00-5 (REACH-no) 01-2119488953-20-XXXX	(0.2 =<C < 100) Skin Sens. 1, H317 (5 =<C < 100) STOT SE 3, H335 (5 =<C < 25) Eye Irrit. 2, H319 (5 =<C < 25) Skin Irrit. 2, H315 (25 =<C < 100) Skin Corr. 1B, H314

Note B : Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Note D : Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: This material contains methanol, which, when ingested, has cards acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death. Can enter the body by ingestion or inhalation or through the skin.
Chronic symptoms	: This material or its emissions may cause damage to kidney and liver and/or aggravate existing disorders.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Sand. Alcohol resistant foam. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : In case of fire: Stop leak if safe to do so.

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment. Ground/bond container and receiving equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight. Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids. Oxidizing agent.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage temperature : ≥ 5 °C

Information on mixed storage : Do not store near oxidizing agents or acidic material.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanol; ethyl alcohol (64-17-5)

United Kingdom - Occupational Exposure Limits

Local name	Ethanol
WEL TWA (mg/m ³)	1920 mg/m ³
WEL TWA (ppm)	1000 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

methanol (67-56-1)

EU - Occupational Exposure Limits

Local name	Methanol
IOELV TWA (mg/m ³)	260 mg/m ³
IOELV TWA (ppm)	200 ppm
Notes	Skin

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Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	Methanol
WEL TWA (mg/m ³)	266 mg/m ³
WEL TWA (ppm)	200 ppm
WEL STEL (mg/m ³)	333 mg/m ³
WEL STEL (ppm)	250 ppm
Remark (WEL)	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)
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

formaldehyde ...% (50-00-0)

EU - Occupational Exposure Limits

Local name	Formaldehyde
IOELV TWA (mg/m ³)	0.37 mg/m ³
IOELV TWA (ppm)	0.3 ppm
IOELV STEL (mg/m ³)	0.74 mg/m ³
IOELV STEL (ppm)	0.6 ppm
Notes	Dermal sensitisation
Regulatory reference	DIRECTIVE (EU) 2019/983 (amending Directive 2004/37/EC)

United Kingdom - Occupational Exposure Limits

Local name	Formaldehyde
WEL TWA (mg/m ³)	2.5 mg/m ³
WEL TWA (ppm)	2 ppm
WEL STEL (mg/m ³)	2.5 mg/m ³
WEL STEL (ppm)	2 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

glycerol (56-81-5)

United Kingdom - Occupational Exposure Limits

Local name	Glycerol
WEL TWA (mg/m ³)	10 mg/m ³ mist
Regulatory reference	EH40/2005 (Third edition, 2018). HSE

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure. Gloves. Protective goggles.

Materials for protective clothing:

Wear suitable working clothes

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

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Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: clear.
Odour	: alcohol odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: ~ 25 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.93 g/cm ³
Solubility	: soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong acids. Strong bases. Oxidizing agent.

10.6. Hazardous decomposition products

May release flammable gases. fume. Carbon monoxide. Carbon dioxide.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

ethanol; ethyl alcohol (64-17-5)

LD50 oral rat	10470 mg/kg
LD50 oral	3450 mg/kg (Mouse)
LD50 dermal rat	15800 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	124.7 mg/l/4h

methanol (67-56-1)

LD50 oral	300 mg/kg
LD50 dermal	300 mg/kg
LC50 inhalation rat (Vapours - mg/l/4h)	128.2 mg/l/4h

2,2'-iminodiethanol; diethanolamine (111-42-2)

LD50 oral rat	1820 mg/kg bodyweight
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Amides, C8-18(even-numbered) and C18(unsatd.), N,N-bis(hydroxyethyl) (68155-07-7)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

formaldehyde ...% (50-00-0)

LD50 oral rat	640 mg/kg bodyweight
LD50 dermal rabbit	270 mg/kg
LC50 inhalation rat (ppm)	< 463 ppm/4h

alcohols, C12-14, ethoxylated (1-2.5 EO), sulphates, sodium salts <10% (68891-38-3)

LD50 oral rat	4100 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight

glycerol (56-81-5)

LD50 oral rat	12600 mg/kg
LD50 dermal	45 ml/kg (In guinea pigs)

Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye irritation.
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met

formaldehyde ...% (50-00-0)

IARC group	1 - Carcinogenic to humans
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Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met

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STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met

methanol (67-56-1)

LOAEL, subacute, oral, monkey	2340 mg/kg bw (3 days)
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Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

ethanol; ethyl alcohol (64-17-5)

LC50 fish 1	13000 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout)
LC50 fish 2	14200 mg/l <i>Pimephales promelas</i> (Fat-head Minnow)
EC50 Daphnia 1	12340 mg/l
EC50 72h algae (1)	275 mg/l <i>Chlorella vulgaris</i>
NOEC chronic crustacea	9.6 mg/l <i>Daphnia magna</i>
EC50, algae, <i>Selenastrum capricornutum</i>	> 100 mg/l (48 Hours)

methanol (67-56-1)

LC50 fish 1	15400 mg/l <i>Lepomis macrochirus</i> (Bluegill)
LC50 fish 2	> 100 mg/l <i>Pimephales promelas</i> (Fat-head Minnow)
EC50 Daphnia 1	> 10000 mg/l
EC50 other aquatic organisms 1	2500 mg/l <i>Crangon Crangon</i> (Common sand shrimp)
EC50 96h algae (1)	22000 mg/l <i>Selenastrum capricornutum</i>
EC50 96h algae (2)	16.912 mg/l Marinewater algae <i>Ulva pertusa</i>
NOEC chronic fish	15800 mg/l <i>Oryzias latipes</i> (Red killifish)
IC50, microorganisms, acute	20000 mg/l (15 Hours)
IC50, microorganisms, acute	> 1000 mg/l (3 Hours)

2,2'-iminodiethanol; diethanolamine (111-42-2)

LC50 fish 1	460 - 5000 mg/l
EC50 Daphnia 1	55 mg/l
ErC50 (algae)	9.5 mg/l
NOEC chronic crustacea	0.78 mg/l

Amides, C8-18(even-numbered) and C18(unsatd.), N,N-bis(hydroxyethyl) (68155-07-7)

LC50 fish 1	2.4 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
LC50 fish 2	4.9 mg/l Zebrafish (<i>Danio rerio</i>)
EC50 Daphnia 1	3.2 mg/l
EC50 72h algae (1)	18.6 mg/l

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NOEC chronic fish	0.32 mg/l
NOEC chronic crustacea	0.07 mg/l

formaldehyde ...% (50-00-0)

LC50 fish 1	40 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	18.2 mg/l
EC50 72h algae (1)	3.48 mg/l

alcohols, C12-14, ethoxylated (1-2.5 EO), sulphates, sodium salts <10% (68891-38-3)

LC50 fish 1	7.1 mg/l Zebrafish (<i>Danio rerio</i>)
EC50 Daphnia 1	7.2 mg/l
EC50 72h algae (1)	27 mg/l
NOEC chronic algae	0.93 mg/l

glycerol (56-81-5)

LC50 fish 1	54000 mg/l Rainbow trout (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 1	1955 mg/l
EC50 72h algae (1)	> 2900 mg/l
EC50, microorganisms, acute, activated sludge	> 1000 mg/l

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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ethanol; ethyl alcohol (64-17-5)

Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	0.8 - 0.967 g O ₂ /g substance
Chemical oxygen demand (COD)	1.7 g O ₂ /g substance
ThOD	2.1 g O ₂ /g substance
BOD (% of ThOD)	37.74 % ThOD
Biodegradation	84 % 20 days

methanol (67-56-1)

Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O ₂ /g substance
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance
ThOD	1.5 g O ₂ /g substance
BOD (% of ThOD)	0.8 % ThOD
Biodegradation	95 % 20 days

2,2'-iminodiethanol; diethanolamine (111-42-2)

Persistence and degradability	Readily biodegradable.
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Amides, C8-18(even-numbered) and C18(unsatd.), N,N-bis(hydroxyethyl) (68155-07-7)

Persistence and degradability	Readily biodegradable.
Biodegradation	92.5 % (28 days)

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green dye	
Persistence and degradability	Not established.

formaldehyde ...% (50-00-0)	
Persistence and degradability	Readily biodegradable.

alcohols, C12-14, ethoxylated (1-2.5 EO), sulphates, sodium salts <10% (68891-38-3)	
Persistence and degradability	Readily biodegradable.

glycerol (56-81-5)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

ML 55 Application Fluid (WP 1103)	
Bioaccumulative potential	Not established.

ethanol; ethyl alcohol (64-17-5)	
Log Pow	-0.32
Bioaccumulative potential	Low.

methanol (67-56-1)	
BCF fish 1	< 10 <i>Leuciscus idus</i> (Golden orfe)
Log Pow	-0.74
Log Kow	-0.82 - -0.64
Bioaccumulative potential	Low. Not expected to bioaccumulate due to the low log Kow (log Kow < 4).

2,2'-iminodiethanol; diethanolamine (111-42-2)	
Bioaccumulative potential	Not established.

Amides, C8-18(even-numbered) and C18(unsatd.), N,N-bis(hydroxyethyl) (68155-07-7)	
Log Pow	3.75
Bioaccumulative potential	Not established.

green dye	
Bioaccumulative potential	Not established.

formaldehyde ...% (50-00-0)	
Log Pow	0.35
Bioaccumulative potential	No bioaccumulation.

alcohols, C12-14, ethoxylated (1-2.5 EO), sulphates, sodium salts <10% (68891-38-3)	
Bioaccumulative potential	Bioaccumulation unlikely.

glycerol (56-81-5)	
Log Kow	-1.75
Bioaccumulative potential	Not established.

12.4. Mobility in soil

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Ecology - soil	Mobile.

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ethanol; ethyl alcohol (64-17-5)	
Surface tension	24.5 mN/m
Ecology - soil	Product evaporates when in contact with the air.

methanol (67-56-1)	
Ecology - soil	Product adsorbs onto the soil.

12.5. Results of PBT and vPvB assessment

Component	
ethanol; ethyl alcohol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
methanol (67-56-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment.





SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Additional information	: Handle empty containers with care because residual vapours are flammable. Flammable vapours may accumulate in the container.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	UN 1170	UN 1170	UN 1170	UN 1170
14.2. UN proper shipping name				
Not applicable	ETHANOL (ETHYL ALCOHOL)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport document description				
Not applicable	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, III	UN 1170 Ethanol solution, 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III
14.3. Transport hazard class(es)				
Not applicable	3	3	3	3
Not applicable				
14.4. Packing group				
Not applicable	III	III	III	III
14.5. Environmental hazards				
Not applicable	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

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14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Special provisions (IMDG)	: 144, 223
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19% Miscible with water.

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3, A58, A180
ERG code (IATA)	: 3L

Inland waterway transport

Classification code (ADN)	: F1
Special provisions (ADN)	: 144, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 144, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

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Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 1	Specific target organ toxicity — Single exposure, Category 1
STOT SE 2	Specific target organ toxicity — Single exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic 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 irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H370	Causes damage to organs.
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.