

LMOE LINE MARKER ORANGE

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name:

LINE MARKER ORANGE

Article number: LMOE

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

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:	Tygris Industrial Unit 31 Kyle Road Industrial Estate Irvine Ayshire KA12 8LE Tel +44 (0) 1294 311 066 Fax +44 (0) 1294 277 115 Email technical@tygrisindustrial.com
Further information obtainable from:	Technical Department
1.4 Emergency telephone	Tel +44 (0) 1294 311 066

1.4 Emergency telephone Tel +44 (0) 1294 311 066 number:



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2. Hazards identification

2.1. Classification	of th	e substance	or mixture
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Classification (EC 1272/2008)	Physical and Chemical Hazards	Flam. Aerosol 1: H222; H229	
	Human health	STOT SE 3 - H336; Eye Irrit. 2: H319; Lact.: H362; EUH208	
	Environment	Aquatic Chronic 2 - H411	

Classification (1999/45/EEC)

Most important adverse effects

Contains isodecyloxpropylamine acetate. May produce an allergic reaction. Extremely flammable aerosol. Pressurised container: May burst if heated. Causes serious eye irritation. May cause drowsiness or dizziness. May cause harm to breast-fed children. Toxic to aquatic life with long lasting effects.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word	Danger
Hazard Statements	 EUH208: Contains isodecyloxpropylamine acetate. May produce an allergic reaction. H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H362: May cause harm to breast-fed children. H411: Toxic to aquatic life with long lasting effects.
Precautionary Statements	 P102: Keep out of reach of children. P210: Keep away from heat/sparks/open flames/hot surfaces No smoking. P211: Do not spray on an open flame or other ignition source. P251: Pressurized container: Do not pierce or burn, even after use. P260: Do not breathe dust/fumes/gas/mist/vapours/spray. P263: Avoid contact during pregnancy/while nursing. P280: Wear protective gloves/protective clothing/eye protection/face protection. P410+412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
Supplemental label information	
2.3. Other hazards	
Other hazards	In use, may form flammable / explosive vapour-air mixture.
PBT	This product is not identified as a PBT/vPvB substance.



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3. Composition/information on ingredients

3.2. Mixtures

ACETONE	30-50%
Index No.	REACH Registration No.
CAS-No.: 67-64-1	EINECS: 200-662-2
Classification (EC 1272/2008) Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336; -: EUH066	Classification (67/548/EEC)
PROPANE	10-30%
Index No.	REACH Registration No.
CAS-No.: 74-98-6	EINECS: 200-827-9
Classification (EC 1272/2008) Flam. Gas 1 - H220 Press. Gas: H280	Classification (67/548/EEC)
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC.; LOW BOILING POINT NAPHTHA	1-10%
Index No.	REACH Registration No.
CAS-No.: 64742-95-6	EINECS: 265-199-0
Classification (EC 1272/2008) Flam. Liq. 3: H226; Asp. Tox. 1: H304; STOT SE 3: H335; Aquatic Chronic 2: H411; STOT SE 3: H336; EUH066	Classification (67/548/EEC)
BUTANE	1-10%
Index No.	REACH Registration No.
CAS-No.: 106-97-8	EINECS: 203-448-7
Classification (EC 1272/2008) Flam. Gas 1 - H220 Press. Gas: H280	Classification (67/548/EEC)
1,2,4-TRIMETHYLBENZENE	1-10%
Index No.	REACH Registration No.
CAS-No.: 95-63-6	EINECS: 202-436-9
Classification (EC 1272/2008) Flam. Liq. 3: H226; Acute Tox. 4: H332; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Aquatic Chronic 2:H411	Classification (67/548/EEC)



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N-BUTYL ACETATE	1-10%
Index No.	REACH Registration No.
CAS-No.: 204-658-1	EINECS: 123-86-4
Classification (EC 1272/2008) Flam. Liq. 3: H226; STOT SE 3: H336; EUH066	Classification (67/548/EEC)
ISOBUTANE	1-10%
Index No.	REACH Registration No.
CAS-No.: 75-28-5	EINECS: 200-857-2
Classification (EC 1272/2008) Flam. Gas 1: H220; Press. Gas: H280	Classification (67/548/EEC)
ALKANES, C14-17, CHLORO	1-10%
Index No.	REACH Registration No.
CAS-No.: 85535-85-9	EINECS: 287-477-0
Classification (EC 1272/2008) Lact.: H362; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	Classification (67/548/EEC)
ETHYL ACETATE	1-10%
Index No.	REACH Registration No.
CAS-No.: 141-78-6	EINECS: 205-500-4
Classification (EC 1272/2008) Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336; EUH066	Classification (67/548/EEC)
MESITYLENE	1-10%
Index No.	REACH Registration No.
CAS-No.: 108-67-8	EINECS: 203-604-4
Classification (EC 1272/2008) Flam. Liq. 3: H226; STOT SE 3: H335; Aquatic Chronic 2: H411	Classification (67/548/EEC)
ISODECYLOXPROPYLAMINE ACETATE	0.1-1%
Index No.	REACH Registration No.
CAS-No.: 28701-67-9	EINECS: -
Classification (EC 1272/2008) Acute Tox. 4: H302; Skin Corr. 1B: H314; STOT SE 3: H335; Aquatic Chronic 1: H410; Skin Sens. 1: H317	Classification (67/548/EEC)

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16



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MATERIAL SAFETY DATA SHEET

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4. First aid measures

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4.1. Description of first aid measures		
General information		
Inhalation	Move to fresh air in case of accidental inhalation of vapours.	
Ingestion	Do not induce vomiting. Consult a doctor.	
Skin contact	Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.	
Eye contact	Bathe the eye with running water for 15 minutes. Consult a doctor.	
4.2. Most important symptoms	and effects, both acute and delayed	
4.3. Indication of any immediate medical attention and special treatment needed		

5. Firefighting measures	6
5.1 Extinguishing Media	
Extinguishing media	Suitable extinguishing media for the surrounding fire should be used.
5.2. Special hazards arising fro	om the substance or mixture
Exposure hazards	Extremely flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture. Vapour may travel considerable distance to source of ignition and flash back.
5.3. Advice for firefighters	
Special Fire Fighting Procedures	Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Refer to section 8 of SDS for personal protection details. Eliminate all sources of ignition. If outside do not approach from downwind.

6.2. Environmental precautions

Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Absorb into dry earth or sand. Do not use equipment in clean-up procedure which may produce sparks. Clean-up should be dealt with only by qualified personnel familiar with the specific substance.

6.4. Reference to other sections

Refer to section 8 of SDS.



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7. Handling and storage

7.1 Precautions for safe handling

Handling requirements	Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Smoking is forbidden. Use non-sparking tools.
7.2. Conditions for safe storage	e, including any incompatibilities
Storage conditions	Store in cool, well ventilated area. Keep container tightly closed. Keep away from direct sunlight. Keep away from sources of ignition.
Suitable packaging	Must only be kept in original packaging.
7.3. Specific end use(s)	
	No data available.

8. Exposure controls/personal protection

8.1. Control parameters

Name	STD	TWA -	- 8 Hrs	STEL -	15 Min
ACETONE	WEL		1210 mg/m3		3620 mg/m3
PROPANE	WEL		1800 mg/m3		7200 mg/m3
BUTANE	WEL		1450 mg/m3		1810 mg/m3
1,2,4-TRIMETHYLBENZENE	WEL		125 mg/m3		-
N-BUTYL ACETATE	WEL		724 mg/m3		966 mg/m3
ISOBUTANE	WEL		2400 mg/m3		9600 mg/m3
ETHYL ACETATE	WEL	200 ppm		400 ppm	
MESITYLENE	WEL	25 ppm		-	

WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment



Engineering measures	Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.
Respiratory equipment	Respiratory protection not required.
Hand protection	Chemically resistant gloves.
Eye protection	Safety glasses. Ensure eye bath is to hand.
Other Protection	Protective clothing.
Environmental	Prevent from entering in public sewers or the immediate environment.



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9. Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Appearance	Aerosol	
Colour	Orange	
Odour	Characteristic.	
Flash point°C	-60	
9.2. Other information		
	No data available	
10. Stability and reactiv	ity	
10.1. Reactivity		
	Stable under recommended transport or storage conditions.	
10.2. Chemical stability		
	Stable under normal conditions. Stable at room temperature.	
10.3. Possibility of hazardous reactions		
	Hazardous reactions will not occur under normal transport or storage conditions.	
10.4. Conditions to avoid		
	Direct sunlight. Heat. Hot surfaces. Sources of ignition. Flames.	
10.5. Incompatible materials		
	Strong oxidising agents. Strong acids.	
10.6. Hazardous decomposition products		
	In combustion emits toxic fumes.	



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11. Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients

ACETONE

IVN	RAT	LD50	5500 mg/kg
ORL	MUS	LD50	3000 mg/kg
ORL	RAT	LD50	5800 mg/kg
1,2,4-TRIMETHYLBENZENE			
IPR	RAT	LDLO	1752 mg/kg
ORL	RAT	LD50	5 gm/kg
N-BUTYL ACETATE			
ORL	MUS	LD50	6 gm/kg
ORL	RAT	LD50	10768 mg/kg
ETHYLACETATE			
ORL	MUS	LD50	4100 mg/kg
ORL	RAT	LD50	5620 mg/kg
SCU	RAT	LDLO	5 gm/kg
MESITYLENE			
IPR	GPG	LDLO	1303 mg/kg
Relevant effects for mixture:			

Effect	Route	Basis
Irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Inhalation	No data available.
Ingestion	No data available.
Skin contact	No data available.
Eye contact	No data available.
Route of entry	



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12. Ecological information

12.1. Toxicity

ACETONE			
BLUEGILL (Lepomis macrochirus)	LC50	8300 mg/l	
12.2. Persistence and degradability			
12.3. Bioaccumulative potential			
12.4. Mobility in soil			
12.5. Results of PBT and vPvB asse	essment		
12.6. Other adverse effects			

Toxic to aquatic organisms.

13. Disposal considerations

13.1. Waste treatment
methodsTransfer to a suitable container and arrange for collection by specialised disposal
company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.



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14. Transport information

14.1. UN number	
UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950
14.2. UN proper shipping n	ame
Proper Shipping Name	AEROSOLS
14.3. Transport hazard clas	s(es)
ADR/RID/ADN Class	2
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.1
IMDG Class	2.1
ICAO Class/Division	2.1
Transport Labels	



14.4. Packing group	
Packing group	Not applicable.
14.5. Environmental hazards	
Environmentally hazardous: Yes	Marine pollutant: No
14.6. Special precautions for us	ser
EMS	
Tunnel Restriction Code	(D)
Transport category	2

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.



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16. Other information

Phrases used in s.2 and s.3	 EUH066: Repeated exposure may cause skin dryness or cracking. EUH208: Contains <name of="" sensitising="" substance="">. May produce an allergic reaction.</name> H220: Extremely flammable gas. H222: Extremely flammable aerosol. H225: Highly flammable liquid and vapour. H226: Flammable liquid and vapour. H229: Pressurised container: May burst if heated H302: Harmful if swallowed. H304: May be fatal if swallowed and enters airways. H314: Causes severe skin burns and eye damage. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H335: May cause drowsiness or dizziness. H362: May cause harm to breast-fed children. H410: Very toxic to aquatic life with long lasting effects. H411: Toxic to aquatic life with long lasting effects.

DISCLAIMER

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.