



MAR 1 liquid for fire extinguisher

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 03/10/2013

Revision date: 01-10-2016

Version:1.1

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

1.1. Product identifier

Product form : Mixture
Product name. : MAR 1 liquid for fire extinguisher
Other means of identification : clear, yellow liquid

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

1.2.1. Relevant identified uses

Use of the substance/mixture : liquid for fire extinguishers for A, B and F fire classes

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Flamark International bv.h/o Flamblocker International
Kaaphoorn stroom 2
1271 EL Huizen
The Netherlands
Info@flamblocker.com

1.4. Emergency telephone number

Emergency number : +31 (0) 653162641

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH, annex XIII.
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Not toxic by inhalation. Remove to fresh air, keep the patient warm and at rest.
First-aid measures after skin contact : Wash skin thoroughly with mild soap and water.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion : Do not induce vomiting. Seek medical advice.

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

No additional information available

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Does not burn. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : This material does not burn. Use appropriate media to extinguish source of fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : The product itself does not burn.
Explosion hazard : not explosive.
Reactivity in case of fire : None.
Hazardous decomposition products in case of fire : None.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire-fighting to enter drains or water courses. Evacuate area.
Protective equipment for firefighters : Wear proper protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing.
Emergency procedures : Immediately contact emergency personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing.
Emergency procedures : Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Do not allow to enter into surface water or drains.
Methods for cleaning up : Flush residue with large amounts of water.

6.4. Reference to other sections

See Heading 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid high temperatures.
Storage temperature : -15°C to +65°C
Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practices.

7.2. Conditions for safe storage, including any incompatibilities

Heat and ignition sources : Remove all sources of ignition. Store away from excessive heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Not required for normal conditions of use.
Other information : Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : clear, yellow liquid
Colour : yellow

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| | |
|--|------------------------------------|
| odour | : pleasant odour. |
| Odour threshold | : No data available |
| pH | : 8,1 - 8,5 |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : 95 - 105 °C |
| Flash point | : No data available |
| Self ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Density | : 1,12 - 1,16 |
| Solubility | : Water: water solution |
| Log Pow | : No data available |
| Viscosity, kinematic | : not determined, similar to water |
| Viscosity, dynamic | : not determined, similar to water |
| Explosive properties | : Not explosive |
| Oxidising properties | : Not oxidizing |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at normal conditions

10.2. Chemical stability

Stable at normal conditions

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

High temperature. Keep away from open flames, hot surfaces and sources of ignition. Keep out of direct sunlight.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| MAR 1 liquid for fire extinguisher | |
|------------------------------------|---------|
| LD50 oral rat | > 10000 |
| LD50 dermal rat | > 3000 |

| | |
|--|-----------------------------------|
| Skin corrosion/irritation | : Not classified pH: 8,1 - 8,5 |
| Serious eye damage/irritation | : Not classified pH: 8,1 - 8,5 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity (single exposure) | : Not classified |
| Specific target organ toxicity (repeated exposure) | : Not classified |

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Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

| MAR 1 liquid for fire extinguisher | |
|------------------------------------|-------------------------------|
| EC50 Daphnia 1 | 316 mg/l HRN EN ISO 6341:2000 |

12.2. Persistence and degradability

| MAR 1 liquid for fire extinguisher | |
|------------------------------------|--|
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 5060 g O ² /g substance HRN EN ISO5815:1998 |
| Chemical oxygen demand (COD) | 12430 g O ² /g substance DIN 38409 T41:1996 |
| Biodegradation | 80,3 % (28 days) EN ISO 9439:2000 |

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

| MAR 1 liquid for fire extinguisher | |
|--|--|
| This substance/mixture does not meet the PBT criteria of REACH, annex XIII. | |
| This substance/mixture does not meet the vPvB criteria of REACH, annex XIII. | |

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|---------------------------------|---|
| Regional legislation (waste) | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Consult the appropriate local waste disposal expert about waste disposal. |
| Sewage disposal recommendations | : Prevent entry to sewers and public waters. |
| Waste disposal recommendations | : Consult the appropriate local waste disposal expert about waste disposal. Do not allow to enter into surface water or drains. |
| Ecology - waste materials | : Avoid release to the environment. |

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

Not under pressure

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

SEVESO Directive: Not applicable

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

SECTION 16: Other information

Other information : It is the user's responsibility to take mentioned precaution measures and ensure that this information is complete and sufficient for the use of this product. 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.

Full text of R-, H- and EUH-phrases::

| | |
|---------------------|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H302 | Harmful if swallowed |
| H319 | Causes serious eye irritation |
| R22 | Harmful if swallowed |
| R36 | Irritating to eyes |
| Xi | Irritant |
| Xn | Harmful |

SDS EU (REACH Annex II)

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THE NEXT GENERATION GREEN FIRE EXTINGUISHERS