# SAFETY DATA SHEET

In accordance with 453/2010 and 1272/2008

(All references to EU regulations and directives are abbreviated into only the numeric term)

Issued 2015-06-18

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

**1.1. Product identifier**

| | |
|---|---|
| **Trade name** | **MARIFIX SIGNALHORN 15PK** |
| Supplier's product number | 12225 |

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

| | |
|---|---|
| **Identified uses** | Horn |

**1.3. Details of the supplier of the safety data sheet**

| | |
|---|---|
| **Company** | Marifix System AB<br>Industrigatan 33<br>SE-31234 LAHOLM<br>Sweden |
| **Telephone** | +46 43 079 133 |
| **E-mail** | info@marifix.se |

**1.4. Emergency telephone number**

In case of emergency contact toxicological information, emergency tel 112.

For non-emergency poison information, see http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

## SECTION 2: HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture**

**Classification in accordance with 1272/2008**

Extremely flammable aerosol (Category 1)

**2.2. Label elements**

**Label information in accordance with 1272/2008**

Hazard pictograms

| | |
|---|---|
| Signal words | Danger |
| Hazard statements | |
| H222,H229 | Extremely flammable aerosol. Pressurised container: May burst if heated |
| Precautionary statements | |
| P101 | If medical advice is needed, have product container or label at hand |
| P102 | Keep out of reach of children |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking |
| P211 | Do not spray on an open flame or other ignition source |
| P251 | Do not pierce or burn, even after use |
| P410+P412 | Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F |
| P501 | Dispose of contents and container to the local recycling centre |

**2.3. Other hazards**

Not relevant.

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is an aerosol dispenser with a spray aerosol containing flammable gas.

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients in a pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

| Constituent | | Classification | Concentration |
|---|---|---|---|
| **PROPANE** | | | |
| CAS No<br>EC No<br>Index No | 74-98-6<br>200-827-9<br>601-003-00-5 | Flam Gas 1, Press Gas *P*; H220, H280 | 25 - 60% |
| **BUTAN** | | | |
| CAS No<br>EC No<br>Index No | 106-97-8<br>203-448-7<br>601-004-00-0 | Flam Gas 1; H220 | 25 - 60% |
| **PENTANE** | | | |
| CAS No<br>EC No<br>Index No | 109-66-0<br>203-692-4<br>601-006-00-1 | Flam Liq 2, *Skin Irrit Cron*, STOT SE 3*drow*, Asp Tox 1, Aquatic Chronic 2; H225, EUH066, H336, H304, H411 | 1 - 5% |

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complement used in the calculation of the hazards of this mixture, see Section 16b

# SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**Upon breathing in**

Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical advice.

**Upon contact with the eyes**

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

**Upon skin contact**

Wash the skin with soap and water.

**Upon ingestion**

Not relevant.

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

Frostbites. Anaesthetic or narcotic effect.

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

Symptomatic treatment.

# SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

**Recommended extinguishing agents**

Extinguish with powder, carbon dioxide or foam.

**Unsuitable extinguishing agents**

May not be extinguished with water.

### 5.2. Special hazards arising from the substance or mixture

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning.

Aerosols may explode when heated to temperatures above 50°C.

Flammable gas.

### 5.3. Advice for fire-fighters

Not applicable

# SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Use recommended safety equipment, see section 8.

Ensure good ventilation.

Keep unauthorized and unprotected people at a safe distance.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

### 6.2. Environmental precautions

Not applicable

### 6.3. Methods and material for containment and cleaning up

Evacuate the area and ventilate the gas.

Spills should be cleaned up with a cloth. Discarded products are to be disposed of at the municipality's collection point for hazardous waste.

### 6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations

# SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Store this product separately from food items and keep it out of the reach of children and pets.

Do not eat, drink or smoke in premises where this product is stored.

Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.

Take precautionary measures against static discharge. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do no expose to temperatures exceeding 50 °C.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in dry and cool area.

Handle in a premises which is well ventilated.

Store in a well-ventilated space.

### 7.3. Specific end uses

Not relevant.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### 8.1.1. National limit values, United Kingdom

All ingredients (cf. Section 3) lack occupational exposure limit values.

### 8.2. Exposure controls

In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.

For limitation of environmental exposure, see Section 12.

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| a) | Appearance | Form: aerosol<br>Colour: colourless |
| b) | Odour | Solvents |
| c) | Odour threshold | Not applicable |
| d) | pH | Not applicable |
| e) | Melting point/freezing point | Not applicable |
| f) | Initial boiling point and boiling range | Not applicable |
| g) | Flash point | Not applicable |
| h) | Evaporation rate | Not applicable |
| i) | Flammability (solid, gas) | Not applicable |
| j) | Upper/lower flammability or explosive limits | Not applicable |
| k) | Vapour pressure | Not applicable |
| l) | Vapour density | Not applicable |
| m) | Relative density | Not applicable |
| n) | Solubility | Not applicable |
| o) | Partition coefficient: n-octanol/water | Not applicable |

| | | |
|---|---|---|
| p) | Auto-ignition temperature | Not applicable |
| q) | Decomposition temperature | Not applicable |
| r) | Viscosity | <= 20.5 mm²/sek |
| s) | Explosive properties | Not applicable |
| t) | Oxidising properties | Not applicable |

**9.2. Other information**

No data available

# SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

The product contains no substances which can lead to hazardous reactions at normal use.

**10.2. Chemical stability**

The product is stable at normal storage and handling conditions.

**10.3. Possibility of hazardous reactions**

May emit volatile, flammable vapours. Avoid handling close to heat or ignition sources.

**10.4. Conditions to avoid**

Avoid heat, sparks and open flames.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

None under normal conditions.

# SECTION 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects**

**General or unspecific toxicity**

Risk of frostbites.

**Harmfulness**

Inhalation of solvent vapours may cause headache, nausea, vomiting and symptoms of intoxication.

**Repeated dose toxicity**

Repeated or long term inhalation of the product cause damage to central nervous system, liver, kidneys and lungs.

**Carcinogenicity**

No carcinogenic effects have been reported for this product.

**CMR effects**

To the best of our knowledge, no mutagenic or otherwise genetic or reproductive toxic effects have been reported for this product.

**Sensibilisation**

No hypersensitive reactions have been reported for the substances in this mixture.

**Corrosive and irritating effects**

Eye contact may cause burning pain or irritation.

Can have a drying effect on the skin and repeated or prolonged contact may lead to skin irritation.

**Effect on judgement and other psychological effects**

At high concentrations there is an anaesthetic or narcotic effect.

Prolonged inhalation can cause loss of consciousness and/or death.

**Effect on human microflora**

Effects on human micro flora have not been proven, or are negligible.

**Relevant toxicological properties**

**PROPANE**

LC50 rat (Inhalation) 4h = 658 mg/L inhalation

**PENTANE**

LC50 rat (Inhalation) 4h = 364 mg/L inhalation

LD50 rat (Orally) 24h > 2000 mg/kg oral

# SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**PROPANE**

LC50 Freshwater water flea (Daphnia magna) 48h = 16.3 mg/L

LC50 Fish 96h = 16.1 mg/L

IC50 Algae 72h = 11.3 mg/L

**PENTANE**

LC50 Freshwater water flea (Daphnia magna) 48h = 9.74 mg/L

No ecological damage is known or expected in the event of normal use.

**12.2. Persistence and degradability**

There is no information regarding persistence or degradability.

**12.3. Bioaccumulative potential**

There is no information regarding bioaccumulation.

**12.4. Mobility in soil**

Information about mobility in nature is not available.

**12.5. Results of PBT and vPvB assessment**

No chemical safety report has been executed.

**12.6. Other adverse effects**

Not indicated

# SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

**Waste handling for the product**

The product is extremely flammable, and if not treated so that this risk is eliminated, the waste thereof should be considered hazardous.

Also take local regulations for dealing with waste into account.

Pressurized can; The container must not be heated or disposed as conventional waste.

**Classification according to 2006/12**

Recommended LoW-code: 14 06 03  Other solvents and solvent mixtures.

Recommended LoW-code: 15 01 04  Metallicpac kaging.

**Recycling of the product**

Residual, old or contaminated product should be disposed of at a waste management facility.

# SECTION 14: TRANSPORT INFORMATION

This product is only supposed to be transported by road or railway and just the transport regulations ADR/RID thus apply. If other means of transport are to be used, contact the publisher of this safety data sheet.

**14.1. UN number**

1950

**14.2. UN proper shipping name**

AEROSOLS

**14.3. Transport hazard class(es)**

**Class**

2: Gases

**Classification code (ADR/RID)**

5F:

**Subsidiary risk (IMDG)**

**Labels**

### 14.4. Packing group

Packing group: Not applicable

### 14.5. Environmental hazards

Not applicable

### 14.6. Special precautions for user

#### Tunnel restrictions

Tunnel category: D.

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

### 14.8 Other transport information

Transport category: 2; Highest total quantity per transported unit 333 kg or liters.

## SECTION 15: REGULATORY INFORMATION

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

Not applicable.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: OTHER INFORMATION

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

#### Revisions of this document

This is the first version.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

#### Full texts for Hazard Class and Category Code mentioned in section 3

| | |
|---|---|
| Flam Gas 1 | Extremely flammable gas (Category 1) |
| Press Gas *P* | Compressed gas |
| Flam Liq 2 | Flammable liquids (Category 2) |
| *Skin Irrit Cron* | Repeated exposure may cause skin dryness or cracking |
| STOT SE 3*drow* | Specific organ toxicity - Single exposure (Category 3, Narcosis effect) |
| Asp Tox 1 | Aspiration toxicity (Category 1) |
| Aquatic Chronic 2 | Toxic to aquatic life with long lasting effects (Category Cron 2) |

#### Comprehensive definition of the hazards mentioned in Section 2

##### Flam Aerosol 1

Aerosol category 1. Containing >=85% flammable components and having a heat of combustion >=30 kJ/g. The product must be specified as foam or spray

#### Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

Tunnel restriction code: D; Passage forbidden through tunnels of category D and E type.

Transport category: 2; Highest total quantity per transported unit 333 kg or liters.

### 16c. Key literature references and sources for data

#### Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I , as updated to 2015-06-18.

Where such data was lacking, on the second hand the documentation on which this official classification is based was used, e.g. IUCLID (International Uniform Chemical Information Database). On the third hand, information was used from reputable international chemical suppliers, and on the fourth hand from other available information, e.g. safety data sheets from other suppliers or information from non-profit associations, whereby the reliability of the source was judged by an expert. If, in spite of this, reliable information was not found, the hazards were judged by expert opinions based on the known properties of similar substances, and according to the principles in 1907/2006 and 1272/2008.

#### Full texts for Regulations mentioned in this Safety Data Sheet

| | |
|---|---|
| 453/2010 | COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) |
| 1272/2008 | 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

89/391 COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

98/24 COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

2006/12 DIRECTIVE 2006/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2006 on waste

1907/2006 REGULATION (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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC Annex I

### 16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

The calculation of the hazards of this mixture has been performed as an evaluation by applying a weight of evidence determination using expert judgement in accordance with 1272/2008 Annex I, weighing all available information having a bearing on the determination of the hazards of the mixture, and in accordance with 1907/2006 Annex XI.

### 16e. List of relevant hazard statements and/or precautionary statements

#### Full texts for hazard statements mentioned in section 3

H220 Extremely flammable gas

H280 Contains gas under pressure; may explode if heated

H225 Highly flammable liquid and vapour

EUH066 Repeated exposure may cause skin dryness or cracking

H336 May cause drowsiness or dizziness

H304 May be fatal if swallowed and enters airways

H411 Toxic to aquatic life with long lasting effects

### 16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

#### Other relevant information

#### Editorial information

This safety data sheet has been generated by the program KemRisk®, KemRisk Sweden AB, Teknikringen 10, SE-583 30 Linköping, Sweden.