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 2015-09-16

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

1.1. Product identifier

Trade name **Slide Master Antifriction**

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

Identified uses Lubricants

1.3. Details of the supplier of the safety data sheet

Company Marifix System AB
Industrigatan 33
SE-31234 LAHOLM
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)
Repeated exposure may cause skin dryness or cracking
Irritates eyes (Category 2)
Specific organ toxicity - Single exposure (Category 3, Narcosis effect)

2.2. Label elements

Label information in accordance with 1272/2008

Hazard pictograms

Signal words	Danger
Hazard statements	
EUH066	Repeated exposure may cause skin dryness or cracking
H222,H229	Extremely flammable aerosol. Pressurised container: May burst if heated
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
Precautionary statements	
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
P280	Wear eye protection
P312	Call a POISON CENTER if you feel unwell
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F
P501	Dispose of contents and container to authorised waste disposal facility

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
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (<0.1% BENZENE)			
CAS No EC No Index No	64742-48-9 265-150-3 649-327-00-6	Flam Liq 3, *Skin Irrit Cron*, Asp Tox 1; H226, EUH066, H304	25 - 60%
ETHYL ACETATE			
CAS No EC No Index No	141-78-6 205-500-4 607-022-00-5	Flam Liq 2, *Skin Irrit Cron*, Eye Irrit 2, STOT SE 3*drow*; H225, EUH066, H319, H336	25 - 60%
PROPANE			
CAS No EC No Index No	74-98-6 200-827-9 601-003-00-5	Flam Gas 1, Press Gas *P*; H220, H280	10 - 25%
1-METHOXY-2-PROPANOL			
CAS No EC No Index No	107-98-2 203-539-1 603-064-00-3	Flam Liq 3, STOT SE 3*drow*; H226, H336	10 - 25%
BUTANE < 0.1% BUTADIENE			
CAS No EC No Index No	106-97-8 203-448-7 601-004-00-0	Flam Gas 1, Press Gas *P*; H220, H280	10 - 25%
PENTANE			
CAS No EC No Index No	109-66-0 203-692-4 601-006-00-1	Flam Liq 2, *Skin Irrit Cron*, STOT SE 3*drow*, Asp Tox 1, Aquatic Chronic 2; H225, EUH066, H336, H304, H411	< 1%

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

Generally

In case of concern, or if symptoms persist, call doctor/physician.

Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

Upon contact with the eyes

Rinse the eye for several minutes with lukewarm water. Contact a physician.

Upon skin contact

Wash the skin with soap and water.

Upon ingestion

Immediately drink a few glasses of water or milk.

DO NOT induce vomiting.

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

Can cause dry or cracked skin during prolonged/frequently repeated contact. Irritates the eyes. Inhalation may cause headache, tiredness, nausea and dizziness. Prolonged exposure can cause loss of consciousness and/or death.

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

Symptomatic treatment.

When contacting a physician, take this SDS with you.

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.

Emits flammable vapours which may form an explosive mixture with air.

In case of fire, high pressure may build up causing the packaging to explode.

Extremely flammable.

5.3. Advice for fire-fighters

Protective measures should be taken regarding other material at the site of the fire.

Cool closed containers that were exposed to fire with water.

Evacuate all not-authorized personnel.

In case of fire use a respirator mask.

Wear full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use recommended safety equipment, see section 8.

Ensure good ventilation.

Do not inhale vapours and avoid contact with skin, eyes and clothes when cleaning up spill.

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.

Note, risk of ignition and explosion.

6.2. Environmental precautions

Avoid discharge into sewers.

6.3. Methods and material for containment and cleaning up

Evacuate the area and ventilate the gas.

Small spills can be wiped up with a cloth or similar. Then flush the spill site with water. Larger spills should first be covered with sand or earth and then be collected. Collected material should be disposed according to Section 13.

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

Avoid spillage, inhalation and contact with eyes and skin.

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.

Emergency showers and eye-rinsing facilities must be available at the workplace.

7.3. Specific end uses

See identified uses in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. National limit values, United Kingdom

ETHYL ACETATE

Time-weighted-average exposure limit (TWA) 200 ppm Short term exposure limit (STEL) 400 ppm

1-METHOXY-2-PROPANOL

Time-weighted-average exposure limit (TWA) 100 ppm / 375 mg/m^3 Short term exposure limit (STEL) 150 ppm / 560 mg/m^3 Anm. Sk

BUTANE < 0.1% BUTADIENE

Time-weighted-average exposure limit (TWA) 600 ppm / 1450 mg/m^3 Short term exposure limit (STEL) 750 ppm / 1810 mg/m^3

Other ingredients (cf. Section 3) have no occupational exposure limit values.

8.2. Exposure controls

In terms of minimizing risks, attention must be paid to both the physical and health hazards (see Sections 2, 10 and 11) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.

Use protective glasses, safety goggles, or a visor.

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.

If necessary, use gloves made of neoprene or nitrile (EN 374).

Use proper protective breathing equipment in case of insufficient ventilation.

Particle filter P2/P3 is recommended.

A breathing mask of the A filter (brown) type, may be required.

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 Colour: colourless
b)	Odour	Characteristic
c)	Odour threshold	Not applicable
d)	pH	Not applicable
e)	Melting point/freezing point	Not applicable
f)	Initial boiling point and boiling range	100 °C at atmospheric pressure (101325 Pa)
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	0.73 kg/L
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	Not applicable
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

The product's main risk is its explosive properties.

Harmfulness

Inhalation of vapors, or ingestion of the product may have harmful effects on the kidneys, liver and central nervous system. Other symptoms may include headache, dizziness, fatigue, drowsiness, vomiting, stomach pain, or in extreme cases, unconsciousness.

Repeated dose toxicity

No information is available.

Carcinogenicity

No carcinogenic effects have been reported for this product.

CMR effects

No mutagenic or reproductive toxic effects have been reported for this substance.

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.

Synergism and antagonism

No information is available.

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

No information is available.

Relevant toxicological properties

NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (<0.1% BENZENE)

LD50 rabbit (Dermally) 24h > 2000 mg/kg

LD50 rat (Orally) 24h > 5000 mg/kg

ETHYL ACETATE

LD50 rabbit (Dermally) 24h > 18000 mg/kg dermal

LC50 rat (Inhalation) 1h = 200 mg/L inhalation

LC50 rat (Inhalation) 8h = 5.86 mg/L inhalation

LD50 rat (Orally) 24h = 5620 mg/kg oral

PROPANE

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

1-METHOXY-2-PROPANOL

LD50 rat (Dermally) 24h = 13500 mg/kg

LD50 rat (Orally) 24h = 5000 mg/kg

BUTANE < 0.1% BUTADIENE

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

PENTANE

LC50 rat (Inhalation) 4h = 364 mg/L inhalation
LD50 rat (Orally) 24h > 2000 mg/kg oral

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (<0.1% BENZENE)`

LC50 Freshwater water flea (Daphnia magna) 48h > 100 mg/l
LC50 Fish 96h = 2200 mg/l

ETHYL ACETATE

LC50 Freshwater water flea (Daphnia magna) 48h = 717 mg/L
LC50 Fish 96h = 230 mg/L
IC50 Algae 72h = 3300 mg/L

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

The product is not to be labelled as a environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

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

Data lacking.

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 Liq 3	Flammable liquids (Category 3)
Skin Irrit Cron	Repeated exposure may cause skin dryness or cracking
Asp Tox 1	Aspiration toxicity (Category 1)
Flam Liq 2	Flammable liquids (Category 2)
Eye Irrit 2	Irritates eyes (Category 2)
STOT SE 3*drow*	Specific organ toxicity - Single exposure (Category 3, Narcosis effect)
Flam Gas 1	Extremely flammable gas (Category 1)
Press Gas *P*	Compressed gas
No tox haz	Not classified as toxic
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

Skin Irrit Cron

Substances and mixtures which may cause concern as a result of skin dryness, flaking or cracking but which do not meet the criteria for skin irritancy, based on either: practical observations; or relevant evidence concerning their predicted effects on the skin

Eye Irrit 2

If, when applied to the eye of an animal, a substance produces at least in 2 of 3 tested animals, a positive response of:
- corneal opacity >= 1 and/or
- iritis >= 1, and/or
- conjunctival redness >= 2 and/or
- conjunctival oedema (chemosis) >= 2

calculated as the mean scores following grading at 24, 48 and 72 hours after installation of the test material, and which fully reverses within an observation period of 21 days

STOT SE 3*drow*

Transient target organ effects: Narcotic effects. These are target organ effects for which a substance does not meet the criteria to be classified in Categories 1 or 2. These are effects which adversely alter human function for a short duration after exposure and from which humans may recover in a reasonable period without leaving significant alteration of structure or function

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 2015-09-18.

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

H226	Flammable liquid and vapour
EUH066	Repeated exposure may cause skin dryness or cracking
H304	May be fatal if swallowed and enters airways
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation

H336 May cause drowsiness or dizziness
H220 Extremely flammable gas
H280 Contains gas under pressure; may explode if heated
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

Warning for misuse

This product can cause severe injuries if used improperly. Read and follow carefully the instructions in this safety sheet and other appropriate risk information. At professional use the employer is responsible for the staff being well aware of the risks.

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.