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 2015-09-18

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

1.1. Product identifier

Trade name

MARIFIX LOCK MASTER POW-R WRAP

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

Identified uses Repair kit, tape

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

Skin Irritant (Category 2)

Irritates eyes (Category 2)

Risk of allergic reaction or asthma if inhaled (Category 1)

May cause an allergic skin reaction (Category 1)

Suspected of causing cancer (Category 2)

Specific organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)

STOT RE 2; Specific target organ toxicity - repeated exposure (Category 2)

2.2. Label elements

Label information in accordance with 1272/2008

Hazard pictograms



Signal words Danger

Hazard statements

H315 Causes skin irritation

H317 May cause an allergic skin reaction
H319 Causes serious eye irritation

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 May cause respiratory irritation H351 Suspected of causing cancer

H373 May cause organs through prolonged or repeated exposure

Contains 4,4'-METHYLENEDIPHENYL DIISOCYANATE; DIPHENYLMETHANE-4,4'-DIISOCYANATE,

ISOMERS; METHYLENEDIPHENYL DIISOCYANATE;

Precautionary statements

P102 Keep out of reach of children

P201 Obtain special instructions before use

P280 Wear protective gloves, protective clothing and eye or face protection

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER
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 composed of a mixture of several solid substances.

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
4,4'-METHYLENEDIPHENYL DIISOCYANATE			
CAS No EC No Index No	101-68-8 202-966-0 615-005-00-9	Skin Sens 1, Resp Sens 1, Eye Irrit 2, Skin Irrit 2, Acute Tox 4 <i>vapour</i> , Carc 2, STOT SE 3 <i>resp</i> , STOT RE 2; H317, H334, H319, H315, H332, H351, H335, H373	4 - 15%
DIPHENYLMETHANE-4,4'-DIISOCYANATE, ISOMERS			
CAS No	9016-87-9	Skin Irrit 2, Acute Tox 4 <i>vapour</i> , STOT SE 3 <i>resp</i> , Eye Irrit 2, Resp Sens 1; H315, H332, H335, H319, H334	6 - 10%
METHYLENEDIPHENYL DIISOCYANATE			
CAS No EC No Index No	26447-40-5 247-714-0 615-005-00-9	Skin Irrit 2, Resp Sens 1, Acute Tox 4 <i>vapour</i> , Eye Irrit 2, STOT SE 3 <i>resp</i> , Skin Sens 1, Carc 2, STOT RE 2; H315, H334, H332, H319, H335, H317, H351, H373	1 - 4%

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

Immediately call a POISON CENTER or doctor/physician.

Never attempt to administer liquid, or anything else, to an unconscious person via the mouth.

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

Flush immediately with luke-warm water for 15 - 20 minutes with wide-open eyes. If symptoms persist, seek medical advice.

Upon skin contact

Wash the skin with soap and water.

If symptoms occur, contact a physician.

Upon ingestion

Flush nose, mouth and throat with water.

Drink a couple of glasses of water immediately.

DO NOT induce vomiting.

Contact a doctor.

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

Suspected of causing cancer.

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

Not relevant.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

5.2. Special hazards arising from the substance or mixture

In case of fire, substances hazardous to health, or substances harmful in other respects, may be dispersed.

Note that the extinguishing water may contain toxic substances or other hazardous substances.

5.3. Advice for fire-fighters

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

In case of fire use a respirator mask.

Cool closed containers that were exposed to fire with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use recommended safety equipment, see section 8.

Ensure good ventilation.

Avoid inhalation and exposure to skin and eyes.

6.2. Environmental precautions

Keep unauthorized and unprotected people at a safe distance.

Avoid discharge into soil, water or sewers.

6.3. Methods and material for containment and cleaning up

Not applicable

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

Read and follow the manufacturer's instructions.

Avoid spillage and contact with eyes and skin.

Store tightly, in original packaging.

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.

Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.

Wash your hands after using the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool and dry place (above freezing temperature and not greater than 30°C).

Handle in premises which have modern ventilation standards.

Eye-rinsing facilities shall be available at the workplace.

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

For the safety and health protection of workers according to EU directives 89/391, 98/24 and 98/24 and national occupational legislation, measures due to both the general health hazards and the content of carcinogens and/or mutagens in this product (see Sections 2, 3 and 10) must be considered.

Eye protection should be worn if there is any danger of direct exposure or splashing.

Use protective gloves of butyl rubber, Viton or fluorine rubber, or get advice from an occupational medical expert about alternative materials. Show this safety data sheet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Appearance Form: Semi-solid tape

Colour: Not indicated

Not applicable b) Odour 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 665 °C 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 Not applicable s) Explosive properties Not applicable Not applicable t) Oxidising properties

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

Reacts with strong oxidising agents.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

General or unspecific toxicity

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

Acute effects

Not classified as an acutely toxic substance.

Repeated dose toxicity

No information is available.

Carcinogenicity

The substance is or suspects to be carcinogenic.

CMR effects

The criteria for classification cannot be considered fulfilled based on available data.

Sensibilisation

The product contain allergenic substances.

Corrosive and irritating effects

This product may irritate eyes, skin, mucous membranes and respiratory tract.

Synergism and antagonism

No information is available.

Effect on judgement and other psychological effects

No information is available.

Effect on human microflora

No information is available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

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

Not indicated

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste handling for the product

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Recycling of the product

This product is not normally recycled. Empty packaging should be disposed of at a recycling centre where practically possible. The manufacturer is affiliated to REPA.

Transportation of waste

Waste class J(1) - Substances classified as harmful or irritating.

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

Not classified as dangerous goods

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

Not applicable

14.6. Special precautions for user

Not applicable

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

Not applicable

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

Skin Sens 1 May cause an allergic skin reaction (Category 1)

Resp Sens 1 Risk of allergic reaction or asthma if inhaled (Category 1)

Eye Irrit 2 Irritates eyes (Category 2) Skin Irrit 2 Skin Irritant (Category 2)

Acute Tox 4*vapour* Acute toxicity (Category 4 vapours)

No phys haz Non-assigned physical hazard

Carc 2 Suspected of causing cancer (Category 2)

STOT SE 3resp Specific organ toxicity - single exposure; May cause respiratory irritation (Category 3 resp)

STOT RE 2 STOT RE 2; Specific target organ toxicity - repeated exposure (Category 2)

No environmental hazard Not classified as being environmentally hazardous

Comprehensive definition of the hazards mentioned in Section 2

Skin Irrit 2

One or more criteria 1-3 for irritation of skin is applicable

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

Resp Sens 1

Substances shall be classified as respiratory sensitisers (Category 1) in accordance with the following criteria:

- (i) if there is evidence in humans that the substance can lead to specific respiratory hypersensitivity and/or
- (ii) if there are positive results from an appropriate animal test

The concentration limit 0.1% for elicitation is used for the application of the special labelling requirements of 1272/2008 Title 2.8 to protect already sensitised individuals

Skin Sens 1

Substances shall be classified as skin sensitisers (Category 1) in accordance with the criteria given below: (i) if there is evidence in humans that the substance can induce sensitisation by contact with the skin in a significant number of people, or (ii) where there are positive results from an appropriate animal test. The concentration limit 0.1% for elicitation is used for the application of the special labeling requirements of 1272/2008 Title 2.8 to protect sensitised individuals

Carc 2

Suspected human carcinogens. The placing of a substance in Category 2 is done on the basis of evidence obtained from human and/or animal studies, but which is not sufficiently convincing to place the substance in Category 1A or 1B, based on strength of evidence together with additional considerations. Such evidence may be derived either from limited (1) evidence of carcinogenicity in human studies or from limited evidence of carcinogenicity in animal studies.

STOT SE 3resp

Transient target organ effects: Respiratory tract irritation. 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

STOT RE 2

Substances that, on the basis of evidence from studies in experimental animals can be presumed to have the potential to be harmful to human health following repeated exposure.

Substances are classified in category 2 for target organ toxicity (repeat exposure) on the basis of observations from appropriate studies in experimental animals in which significant toxic effects, of relevance to human health, were produced at generally moderate exposure concentrations.

In exceptional cases human evidence can also be used to place a substance in Category 2

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

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)
- 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

- H317 May cause an allergic skin reaction
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H319 Causes serious eye irritation
- H315 Causes skin irritation
- H332 Harmful if inhaled
- H351 Suspected of causing cancer
- H335 May cause respiratory irritation
- H373 May cause organs through prolonged or repeated exposure

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

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

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.