

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING ***Identification of the substance or preparation:** TERMIFIX**Use of the substance/preparation:** Polyurethane adhesive for insulation plates .**Company/undertaking identification:** FRAGMAT TIM, Tovarna izolacijskega materiala d.d.

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Emergency telephone: FRAGMAT TIM d.d. phone: + 386 (0)3 73 44 500**2. HEALTH HAZARDS DATA *****Hazard description:**

Xn Harmful .

F+ Extremely flammable .

Human health: Harmful by inhalation. Irritating to eyes, respiratory system and skin.

May cause sensitisation by inhalation and skin contact. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Physicochemical effects: Extremely flammable.**Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container. Contains isocyanates. See information supplied by the manufacturer.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - no smoking.

3. COMPOSITION/INFORMATION ON INGREDIENTS ***Chemical composition:** Mixture of substances listed below with nonhazardous additions.**Components dangerous to health and environment:**

Composition	Content (weight %)	CAS number	EINECS number	Index number	R directives	Symbol
Diphenylmethandiisocyanate, isomere and homologues	40 - 50	9016-87-9	/	/	20-36/37/38-40-42/43-48/20	Xn, Xi , Carc. Cat. 3
tris(2-chlorisopropyl)-phosphate	1- 10	13674-84-5	237-158-7	/	52/53	/
Dimethyl ether	5 -15	115-10-6	204-065-8	603-019-00-8	12	F+
Isobutane (< 0,1% butadiene)		75-28-5	200-857-2	601-004-00-0	12	F+
Propane	< 5	74-98-6	200-827-9	601-003-00-5	12	F+

Additional information: For the wording of the listed risk phrases refer to section 16.**4. FIRST AID MEASURES****General:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.**Inhalation:** Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Skin contact: If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

Eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.**Ingestion:** Call for a doctor immediately.

5. FIRE-FIGHTING MEASURES

Dangerous decomposition products: In case of fire, the following can be released:

Nitrogen oxides (NO_x), Carbon monoxide (CO), Hydrogen cyanide (HCN) .

Special protective equipment for fire-fighters: Mouth respiratory protective device.

Suitable extinguishing media: Foam, CO₂, sand, extinguishing powder. Do not use water.

Unsuitable extinguishing media: Full jet of water.

Additional information:

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep away from ignition sources. Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Environmental precautions: Do not allow to enter sewers/ surface or ground water.

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Methods for cleaning: Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7. HANDLING AND STORAGE

Handling:

Information for safe handling:

Ensure that suitable extractors are available on processing machines

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Do not store together with acids.

Do not store together with alkalis (caustic solutions).

Further information about storage conditions:

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

Protect from humidity and water.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

8. EXPOSURE CONTROLS

Technical measures: Good ventilation should be taken care of, this will make sure that the prescribed limit values of exposure are not exceeded – in case they are exceeded, it is necessary to protect the respiratory organs with a breathing device. Avoid contact of the product with the skin or the eyes. The floor of the storage room has to be resistant to solvents. Only earthed devices should be used.

There is an 8-hour exposure limit in the atmosphere of the working place
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL Short-term value: 0.07 mg/m³

Long-term value: 0.02 mg/m³

115-10-6 dimethyl ether

WEL Short-term value: 958 mg/m³, 500 ppm

Long-term value: 766 mg/m³, 400 ppm

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection: Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles.

Skin protection: Avoid contact with the skin.

Hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information:

Physical state: Aerosol

Colour: According to product specification

Odour: Characteristic

Important health, safety and environmental information:

pH: Not important (is not used)

Boiling point: Undetermined

Flashpoint: Not applicable

Ignition temperature: 199°C

Dry remains: Not applicable

Solvent content (VOC): 18,48 %

Solubility in water: Insoluble.

Relative density at 20°C: Not determined.

Inflammability: Extremely flammable.

Explosive characteristics:

Lower: 3,0 Vol. %

Upper: 18,6 Vol. %

Oxidative characteristics: /

Vapour pressure: /

Distribution coefficient: /

Viscosity: /

Vapour density: /

Evaporation rate: /

10. STABILITY AND REACTIVITY

Conditions to avoid: No decomposition if used according to specifications.

Materials to avoid: No dangerous reaction known.

Hazardous decomposition products:

Hydrogen cyanide (prussic acid), Carbon monoxide, Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

Acute effects:

on the eyes: Irritating effect.

on the skin: Irritant to skin and mucous membranes

Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful.

Irritant .

Sensitisation: May cause sensitisation by inhalation and skin contact.

12. ECOLOGICAL INFORMATION

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Other adverse effects: /

13. DISPOSAL CONSIDERATIONS

Product:**Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

Land transport ADR/RID (cross-border):

ADR/RID class: 2.5F Gases.

UN-Number: 1950

Packaging group: -

Hazard label: 2.1

Description of goods: 1950 AEROSOLS

Remarks: LQ:2

Maritime transport IMDG:

IMDG Class: 2.1

UN Number: 1950

Label: 2.1

Packaging group: -

EMS Number: F-D,S-U

Marine pollutant: No

Proper shipping name: AEROSOLS

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 2.1

UN/ID Number: 1950

Label: 2.1

Packaging group: -

Proper shipping name: AEROSOLS, flammable

15. REGULATORY INFORMATION ***Classification of dangers:** X_n – harmful; F+ – extremely flammable**Contains:** diphenylmethanediisocyanate, isomeres and homologues

R phrases: R12 Extremely flammable.
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitisation by inhalation and skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

S phrases: S2 Keep out of the reach of children.
S16 Keep away from sources of ignition - no smoking.
S23 Do not breathe aerosol.
S28 After contact with skin, wash immediately with plenty of soap and water.
S46 If swallowed, seek medical advice immediately and show this container or label.
S36/37 Wear suitable protective clothing and gloves.
S51 Use only in well-ventilated areas.

Special labelling of certain preparations:

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Contains isocyanates. See information supplied by the manufacturer

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

The product has been classified and marked in accordance with EU Directive EEC 67/548/ relating to the classification, packaging and labelling of dangerous substances and EU Directive 1999/45/EC relating to the classification, packaging and labelling of dangerous preparations.

16. OTHER INFORMATION *

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The material safety data sheet is formulated in accordance with the regulation REACH 1907/2006 (law gazette EC no. L 136/2007).

R phrases from point 3: R12 Extremely flammable.
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitisation by inhalation and skin contact.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Changes in this material safety data sheet in respect to the former version: points 1, 2, 3, 15 and 16.

Date of the first issue of the material safety data sheet: 21.07.2008.

Sources: Material safety data sheet for components of product (17.05.2010)

16. OTHER INFORMATION *

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The material safety data sheet is formulated in accordance with the regulation REACH 1907/2006 (law gazette EC no. L 136/2007).

R phrases from point 3

R12 Extremely flammable.

R20/22 Harmful by inhalation and if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R42/43 May cause sensitisation by inhalation and skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Quellen: Sicherheitsdatenblatt der Lieferanten von Komponenten. Sources: Material safety data sheet for components of product 10.07.2009.