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

PRODUCT IDENTIFICATION TF Silicone + teflon grease

Relevant identified uses of the substance or mixture and uses advised against:

Identified use: Protects against weathering, preserves surfaces, rubber,

plastics, covers a wide range of operating temperatures:

from -40° C to 210° C,

Use advised against: not determined

Data on the supplier of the data sheet:

PRODUCER AG Termopasty Grzegorz Gasowski

18-100 Łapy, ul. Harcerska 8, tel./fax 85 715 33 28

Email of a person

responsible for the MSDS: <u>biuro@termopasty.pl</u>

EMERGENCY TELEPHONE 85715 33 28 from 8.00 a.m. to 4.00 p.m.

Toxicological Information 22 618 77 10, National Centre of Toxicological Information 42 631 47 24

SECTION 2: Hazards Identification

The mixture is not classified as hazardous.

HEALTH HAZARDS

When properly used the product does not pose threat.

ENVIRONMENTAL HAZARDS

Not classified as dangerous to the environment.

PHYSICAL/CHEMICAL HAZARDS

Not hazardous during normal use.

The product is not subject to mandatory labelling.

Label elements:

Hazard symbols:

No.

Phrases indicating the type of risk (R-phrases)

No.

Phrases indicating the conditions of safe use of the preparation (S Phrases)

No.

Other hazards:

No other hazards.

No information on fulfilment of PBT or vPvB criteria according to Annex XIII of REACH Regulation. Proper tests were not performed.

SECTION 3: Composition/information on ingredients

Substances:

Not applicable.

Mixtures:

Dangerous components: no

SECTION 4: First Aid Measures

IN THE CASE OF SKIN CONTACT:

Skin contaminated with preparation should be wiped with paper or cloth and washed with warm water and soap.

IN CASE OF EYE CONTACT:

Rinse eyes with plenty of water for approx. 15 minutes, consult a physician. Avoid strong jet due to the risk of damage to cornea persists, seek medical advice. If eye irritation persists, provide medical care.

INHALATION:

Little volatile - poisoning by inhalation is little likely. In case of breathing trouble provide fresh air and medical assistance

IN THE CASE OF SWALLOWING:

Flush mouth with water. Provide medical help. Provide the physician with information on the product.

MOST IMPORTANT ACUTE AND DELAYED SYMPTOMS AND EFFECTS OF EXPOSURE:

Skin contact: possible irritation.

Eyes contact: lacrimation, possible irritation.

Respiratory system: irritation of mucous membranes of upper respiratory tract.

Alimentary tract: Ingestion of the product may cause disorders in the alimentary tract.

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Decision on treatment method is made by a physician, after having examined the condition of an injured.

SECTION 5: Fire Fighting Procedure

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA

Paste is slow-burning. Recommendations listed below are applicable in the event of fire in vicinity. Water, alcohol-resistant foam, carbon dioxide, extinguishing powders.

EXTINGUISHING MEDIA WHICH SHALL NOT BE USED:

Unknown

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Possible generation of carbon oxide, carbon dioxide, silicon dioxide (SiO2).

INFORMATION FOR FIRE FIGHTERS

Do not allow the extinguishing media to get into sewage system and watercourses. Notify the neighbourhood about the fire. Remove unauthorized persons that do not participate in fire fighting from the area of danger. Notify the Public Fire Brigade, and if needed also Police, closest local authorities and the closest Chemical Rescue Team.

SECTION 6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

For persons that do not belong to the assisting personnel: inform appropriate services about the emergency. Remove unauthorized persons that do not participate repairing failure from the area of danger.

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For persons that provide assistance: Ensure proper personal protective equipment (protective clothes, glasses and gloves).

ENVIRONMENTAL PRECAUTIONS:

In case of emergency do not let to release to the environment. Secure the product against getting into drains, surface and ground water and soil. Try to collect as much as possible, to appropriate containers for further disposal.

METHODS AND MATERIALS USED TO PREVENT SPREADING OF CONTAMINATION AND TO CLEAN UP:

Gather and place in labelled, tight container for recovery or safe disposal of the product. Contaminated surfaces should be cleaned with detergents and rinsed with large amount of water.

REFERENCES TO OTHER SECTIONS:

Handling of product waste - see item 13 hereto.

Personal Protection Equipment - see item 8 hereto.

SECTION 7: Substance/Mixture Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Use in ventilated rooms. Avoid eye contact and prolonged skin contact. Work according to the hygiene and safety rules: do not eat nor drink, do not smoke at the workplace, wash hands after use, take the contaminated clothing and protective equipment off before entering the areas intended for food consumption.

CONDITIONS FOR SAFE STORAGE, INCLUDING INFORMATION ON ANY INCOMPATIBILITIES:

Store in a well ventilated, cool and dry place. Protect against sunlight.

SPECIFIC END USE(S):

Protects against weathering, preserves surfaces, rubber, plastics, covers a wide range of operating temperatures: from -40°C to 210°C. The product is intended for professional use only.

SECTION 8: Exposure Control / Personal Protection Means

CONTROL PARAMETERS:

MPiPS Regulation - Regulation of the Minister of Labour and Social Policy dated 29 November 2002 on maximum allowable concentrations and levels of harmful factors in the working environment. (J. oL. No. 217/2002, item 1833 as amended: J. oL. No. 212/2005 item 1769, J. oL. No. 161/2007, item 1142, J. oL. No. 105/2009, item 873);

Components covered by exposure standards: no

DETERMINING IN THE AIR ON WORKPLACES

Regulation of MZ [Minister of Health] dated April 20th, 2005 on tests and measurements of harmful factors in the working environment (J. oL. No. 73/2005, item 645 as amended).

PN-EN 1540:2004 Workplace Atmospheres - Terminology; PN-Z-04008-7:2002 Air cleanness protection. Measurements of concentrations of chemical substances and industrial dusts in the air in working environment. Rules of air sampling in working environment and interpretation of the results;

PN-Z-04008-7:2002/Az1:2004 Amendment to the standard on Air Cleanness Protection. Measurements of concentrations of chemical substances and industrial dusts in the air in working environment. Rules of air sampling in working environment and interpretation of the results.

PROPER ENGINEERING CONTROLS:

Efficient local exhaust ventilation and general ventilation in the room is necessary.

INDIVIDUAL PROTECTION MEASURES SUCH AS INDIVIDUAL PROTECTIVE EQUIPMENT:

EYES OR FACE PROTECTION:

Avoid contact with eyes. When handling the product, if there is a risk of exposure, wear protective glasses with side shields or safety goggles that do not mist up (if combined with a half-mask).

SKIN PROTECTION

Avoid skin contact. Wear protective gloves made of natural rubber, nitrile rubber, butyl rubber or PVAL.

Gloves material:

Selection of appropriate gloves does not depend solely on the material, but a make and quality that is different at different producers. Resistance of material used to make gloves may be determined after having performed the tests. The exact time of gloves destruction must be determined by a producer. Others: no

RESPIRATORY PROTECTION

Avoid inhaling dusts. When the substance concentration is determined and known, the personal protective equipment should be selected considering the concentration of substances present on a given working stand, time of exposure, activities performed by an employee and recommendations of the PPE manufacturer. In emergencies use a half-mask or a mask combined with dust filter.

THERMAL HAZARDS:

Not applicable.

BIOLOGICAL MONITORING

Not determined

MONITORING OF THE ENVIRONMENT

Permissible concentration of the substance in the air - Resolution of MŚ [Minister of the Environment] dated March 3rd, 2008 on the levels of certain substances in the air (J. oL. 2008 No. 47 item 281): not determined

Permissible indices values of pollution in industrial wastewater let into the sewerage units - Regulation of MB dated July 14th, 2006 on the method of fulfilment of obligations by industrial wastewater suppliers and on conditions of letting wastewater into sewerage units (J. oL. 2006 No. 136 item 964): not determined

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical propertie

Appearance: paste, transparent

Odour: odourless

 $\begin{array}{lll} \mbox{Range of operating temperatures} & -40 \div 260 \mbox{°C} \\ \mbox{Flash point:} & 300 \mbox{°C} \\ \mbox{Melting point:} & -50 \mbox{°C} \\ \mbox{Density} & 0,97 \mbox{ g/cm}^3 \\ \mbox{Solubility in water:} & \mbox{non-soluble} \\ \mbox{Other solvents} & \mbox{organic solvents} \end{array}$

Refractive index 1.404

Specific heat at 50°C 0,35 Cal x g⁻¹ x°C

wsp. Przenikania ciepła w temp. 0-150°C 3,8 x 10⁻⁴ Cal x cm⁻¹ x sek.⁻¹ x°C

Dielectric constant at 100 Hz 2.74

Volume resistivity $10^{14} \Omega x$ cm Loss tangents at f = 100 Hz $6 x 10^{-4}$

Other information:

No additional tests results.

SECTION 10: Stability and Reactivity

REACTIVITY

Not known.

CHEMICAL STABILITY

Stable when proper storage and use conditions are maintained.

POSSIBILITY OF OCCURRENCE OF HAZARDOUS REACTIONS:

Dangerous polymerization is not expected.

CONDITIONS TO BE AVOIDED

Avoid temperatures above 260°C.

NON-CONFORMING MATERIALS:

No

HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon oxides, silicon dioxide.

SECTION 11: Toxicological Information

INFORMATION ON TOXICOLOGICAL EFFECTS

- a) acute toxicity: no data
- b) irritating effect: no
- c) corrosive effect: no
- d) sensitizing effect: no
- e) toxicity for a repeatable dose: no data
- f) carcinogenicity: no g) mutagenicity: no
- h) toxicity for reproduction: no

None of the product components is classified as carcinogenic, mutagenic or toxic for reproduction acc. to the provisions of Law dated January 11th, 2001 on chemical substances and preparations (J. oL. No. 11/2001, item 84 as amended) and is not included in the list of carcinogenic or mutagenic substances that forms an Annex to the Regulation of Health Minister dated December 1st, 2004 on substances, preparations, factors or technological processes having carcinogenic or mutagenic effect in working environment (J. oL. No. 280/2004, item 2771).

No detailed tests on product toxicity were carried out. In respect of the included components the mixture is not classified as dangerous to human health.

INFORMATION ON PROBABLE ROUTES OF EXPOSURE:

INHALATION

When properly used the product does not pose threat.

SKIN CONTACT

When properly used the product does not pose threat.

EYES CONTACT

When properly used the product does not pose threat.

INGESTION

Ingestion of the product may cause disorders in the alimentary tract. Immediately contact a physician.

Delayed, direct and chronic results of short and long-term exposure:

No data available.

Effects of mutual interaction:

No data available.

SECTION 12: Ecological information

Detailed testing was not performed, thus no data is available. The mixture not classified as hazardous to the environment. Ingress to and dissipation in soil, sewage system, subterranean water and watercourses has to be avoided.

TOXICITY:

Data not available.

STABILITY AND ABILITY TO DECOMPOSE:

When stored in recommended conditions and used as intended the product does not decompose.

BIOACCUMULATIVITY:

No data available

MOBILITY IN SOIL:

TF Silicone+teflon grease is a little volatile substance, poses to threat to the atmospheric air, it may pose threat to surface waters and soil. Avoid getting the product into sewerage, water tanks, ground waters and soil.

THE RESULTS OF ASSESSMENT OF PBT AND VPVB PROPERTIES:

No data available.

OTHER HARMFUL EFFECTS:

No data available.

SECTION 13: Handling of Wastes

USED PRODUCT

Do not remove to the sewage system. Do not allow contamination of surface and underground water. Do not dispose of together with municipal wastes. Incinerate in the dangerous wastes incineration plant, in presence of flammable materials. Method of disposal of gathered waste should be agreed with a Department of the Environment Protection in a Voivodship Office or a Starosty. Dispose of as hazardous wastes: Code: 08 02 99 wastes not otherwise specified (Regulation of MŚ

Dispose of as hazardous wastes: Code: 08 02 99 wastes not otherwise specified (Regulation of MS [*Minister of the Environment*], J. oL. No. 112/2001, item 1206)

CONTAMINATED PACKAGING

Emptied, disposable packagings should be forwarded to an authorized wastes recipient. Packagings code 15 01 02 Plastic Packaging Materials (Regulation of MŚ [*Minister of the Environment*], J. oL. No. 112/2001, item 1206).

Community regulations on wastes:

Council Directive No. 75/442/EEC on wastes, Council Directive No. 91/689/EEC on dangerous wastes, Commission Decision No. 2000/532/EC of May 3rd, 2000 with a wastes list, OJ No. L 226/3 of September 6th, 2000 with amending decisions..

SECTION 14: Transport information

UN Number (ONZ number): Not applicable, the product is not classified as dangerous during transportation.

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Correct UN shipping name: Not applicable, the product is not classified as dangerous during transportation.

Transport hazard class(es): Not applicable, the product is not classified as dangerous during transportation.

Packaging group: Not applicable, the product is not classified as dangerous during transportation. **Hazards to the environment:** Not applicable, the product is not classified as dangerous during transportation.

Particular precautions for users: Not applicable, the product is not classified as dangerous during transportation.

Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code: Not applicable, the product is not classified as dangerous during transportation.

SECTION 15: Regulatory Information

Safety, health and environment legislation specific for the substance or mixture:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council, dated December 18th, 2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as amended COMMISSION REGULATION (EU) No. 453/2011 of May 20th, 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).

Law on January 11th, 2001 on chemical substances and preparation (J.oL. No. 11, item 84 as amended). Regulation of Health minister dated September 2nd, 2003, on the criteria and method of classification of chemical substances and preparations (J.oL. No. 171 item 1666 as amended).

Regulation of Health Minister dated February 8th, 2010 on the list of dangerous substances together with their classification and labelling (J. oL. No. 27, item 140).

Regulation of the European Parliament and of the Council of December 16th, 2008 No. 1272/2008 (CLP) – (Art. 55, Annex VI, tab. 3.2) as amended.

Regulation of the Health Minister dated March 5th, 2009 on labelling of packagings for dangerous substances and preparations and certain chemical preparations. (J.o.L. No. 53, item 439).

Regulation of the Minister of the Environment dated April 23th, 2004 on definition of labelling patterns for packagings (J.oL No. 94, item 927).

Regulation of the Health Minister dated April 29th, 2010 on dangerous substances and preparations in packagings equipped with child-resistant fastenings and tactile warnings of danger (J. oL. 83 item 544). Act dated April 27th, 2001 on wastes (J.oL. No. 62, item 628 as amended).

Act dated May 11th, 2001 on packagings and packaging wastes (J.oL. No. 63, item 638 as amended). Regulation of the Minister of Environment dated September 27th, 2001 on wastes catalogue (J.oL No. 112, item 1206).

Council Directive No. 75/442/EEC on wastes, Council Directive No. 91/689/EEC on dangerous wastes, Commission Decision No. 2000/532/EC of May 3rd, 2000 with a wastes list, OJ No. L 226/3 of September 6th, 2000 with amending decisions.

Act dated October 28th, 2002 on carriage of dangerous goods by road (J.oL. No. 199, item 1671 as amended).

Governmental declaration dated January 16th, 2009 on entry into effect of amendments to Annex A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), made up in Geneva on September 30th, 1957 (J.oL No. 27, item 162).

ADR Rules - legislation in force from January 1st, 2009.

Regulation of the Minister of Labour and Social Policy dated November 29th, 2002 on maximum allowable concentrations and levels of harmful factors in the working environment (J.oL. No. 217, item 1833 as amended).

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Regulation of the Health Minister dated December 1st, 2004 on substances, preparations, agents or technological processes having a carcinogenic or mutagenic effect in the working environment (J.oL. No. 280, item 2771 as amended).

Regulation of the Health Minister dated December 30th, 2004 on safety and health at work relating with the occurrence of chemical agents in the working place (J. oL. of 2005 No. 11, item 86 as amended). Regulation of the Minister of the Environment dated December 9th, 2003 on substances posing special danger for the environment (J.oL. No. 217, item 2141).

Assessment of Chemical Safety:

No chemical safety assessment for substances contained in the mixture and for the mixture.

SECTION 16: Other information

All data are based on the current state of our knowledge. The Data Sheet was prepared based on the MSDS and data obtained from a Manufacturer. Recipients of our product must take into consideration the existing rules of law and other regulations.

Other sources of key data used in elaboration of this Data Sheet:

- RTECS Computer Database /Registry of Toxic Effects of Chemical Substances/, elaborated by the National Institute for Occupational Safety and Health, 2005.
- Computer Database Material Safety Data Sheets, elaborated by the Central Labour Protection Institute National Research Institute, 2005.
- "Harmful factors in the working environment permissible limits" issued by the Central Labour Protection Institute National Research Institute, 2005.
- Computer Database EINECS, 2005.
- Annex No. I to the Regulation (EU) 453/2010 dated May 20th, 2010.

R and H Phrases:

Description of Abbreviations, Acronyms and Symbols used hereto:

No.

Training:

not required