MATERIAL SAFETY DATA SHEET
Gel Flux

Version 1.04
Date of issue: 26.04.2005 Date of revision : 23.04.2013

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

1.1 Product identification **Gel Flux**

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

Identified use: Flux gel is the condensed rosin type flux of RMA class, intended for SMT assembly and repairs.

Applications advised against: not specified

1.3 Data on the supplier of the data sheet:

Producer: AG Termopasty Grzegorz Gąsowski
18-218 Sokoły, ul. Kolejowa 33 E, tel/fax 86 274 13 42

email address of person responsible for the data sheet: biuro@termopasty.pl

1.4 Emergency telephone: 86 274 13 42 from 8.00 a.m. to 4.00 p.m.

SECTION 2: Hazards identification

2.1 Classified according to Directive 1999/45/WE

R43

Classification according to Regulation (EC) No. 1272/2008

Skin Sens. 1; H317

Health hazards

May cause an allergic skin reaction.

Environmental hazards

Not classified as dangerous to the environment.

Physical/chemical hazards

No

The product is subject to obligatory labelling

2.2 Label elements:

Contains: Rosin (Index no: 650-015-00-7)

Hazard symbols: Warning

Hazard statement(s) (H):

H317 – May cause an allergic skin reaction.

Precautionary statement(s) (P):

P272 – Contaminated work clothing should not be allowed out of the workplace.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 – IF ON SKIN: Wash with soap and water.
P333+P313 – If skin irritation or a rash occurs: Get medical advice/attention.
P363 – Wash contaminated clothing before reuse.

2.3 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

3.1 Substances :
Not applicable.

3.2 Mixtures :
Dangerous components::

Identification of Product	Contents %	Classification acc. to 67/548/EEC	CLP Classification	
			Hazard Class and Category Codes	Codes of phrases indicating the type of hazard
Rosin CAS no. : 8050-09-07 EC no . : 232-475-7 Index no . : 650-015-00-7 REACH no. : substance subject to regulations for transition period	45 - 50	R43	Skin sens. 1	H317
Succinic anhydride CAS no: 108-30-5 EC no: 203-570-0 Index no : 607-103-00-5 REACH no : substance subject to regulations for transition period	< 5	 Xn, R22  Xi, R36/37	Acute Tox. 4 Eye Irrit. 2 STOT SE 3	H302 H319 H335

Full content of R- and H-phrases in section 16

Section 4: First aid measures

4.1 Description of first aid measures
In case of skin contact:
Wash with plenty of water. If skin irritation persists provide medical care.
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.\
Exposure to inhalation:
Move to a fresh air atmosphere. In case of persistent symptoms provide medical care.
In case of swallowing:
After ingestion induce vomiting immediately (within 5 min.). Administer 1-2 glasses of milk or water to drink. Contact a physician immediately.

4.2 Most important acute and delayed symptoms and effects of exposure
Skin contact: reddening, pain, burning
Eye contact:: irritation, pain, tearing
Respiratory system: irritation of mucous membranes of upper respiratory tract.
Intestinal tract: intake chemicals may cause irritation of the mouth, throat and gastrointestinal further

4.3 Indication of any immediate medical attention and special treatment needed:
Decision on treatment is taken by physician after evaluation of condition of affected person

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam resistant to alcohols, carbon dioxide, extinguishing powder.

Extinguishing media to be avoided:

Do not use water compact jet.

5.2 Special hazards arising from substance or mixture:

Possible formation of carbon monoxide, carbon dioxide and hazardous vapours.

5.3 Information for fire brigade

Substances harmful to human health can be released during fire. Wear gas-tight protective clothing and apparatus protecting respiratory tract (oxygen respirator combined with mask). Prevent from ingress of extinguishing agents to sewage system or watercourses. Notify the surroundings on the fire. Remove any persons not involved in fire extinguishing action from the area exposed to hazard. Notify National Fire Brigade and when necessary also Police, local self-government authorities and the nearest chemical rescue unit..

SECTION 6: Accidental release measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

For persons not belonging to rescue personnel: notify appropriate services on the emergency. Remove any persons not involved in firefighting action from the area exposed to hazard.

For rescue personnel: provide appropriate ventilation, use personal protective equipment.

6.2 Environmental precautions:

In case of emergency prevent from discharges to the environment. Secure the product against release into sewage channels, watercourses and subterranean water as well as to the soil. Make any possible attempts to collect it to suitable containers for further disposal.

6.3 Methods and materials used to prevent from spreading of contamination and to clean up

In case of a spill of melted preparation allow for solidification, then gather into appropriate containers and forward for disposal. Wash the contaminated surface with water.

6.4 References to other sections:

See section 13 for waste disposal.

See section 8 for personal protection measures.

SECTION 7: Handling and storage of substances and their mixtures

7.1 Precautions for safe handling

Avoid contact of liquid and hot preparation with eyes and skin.Use personal protective equipment. Rooms should have sufficient local and general ventilation. Follow health and safety procedures: do not consume neither food nor beverages and do not smoke in the workplace, wash hands after use; before entering rooms designed for having meals take off contaminated clothing and protective equipment.

7.2 Onditions for safe storage, including information on any incompatibilities:

Store in a well ventilated, cold and dry place. When not in use, containers should be stored in airtight closed state. Access to the product should have a person authorized to do so. Do not store with oxidizing agents and strong acids

7.3 Speficic end use(s):
Flux gel is the condensed rosin type flux of RMA class, intended for SMT assembly and repairs. Product intended for professional use only.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters:
Regulation of the Minister of Labour and Social Policy of 29 November 2002 on highest permissible concentrations and intensities of agents and impacts hazardous to human health in the work environment. (L.J. no. 217/2002, item 1833 as amended: L.J. no. 212/2005, item 1769, L.J. no. 161/2007, item 1142, L.J. no. 105/2009, item 873);
Ingredients, to which exposure limits apply: no
Sampling in the air of workplaces
Regulation of the Minister of Health of 20 April 2005 *on testing and measurements of agents and impacts harmful to human health in the work environment* (L.J. no. 73/2005, item 645 as amended);
PN-EN 1540:2004 Air on workstations – Terminology; PN-Z-04008-7:2002 Clean air protection. Measurements of concentrations of chemical substances and dust in air of work environment. Rules on air sampling in the work environment and interpretation of results;
PN-Z-04008-7:2002/Az1:2004 Correction to the standard on clean air protection. Measurements of concentrations of chemical substances and dust in air of work environment.

8.2 Exposure control
Efficient local exhaust ventilation as well as general ventilation of room is essential.
Individual protection means such as personal protection equipment:
Eyes protection
Avoid eye contact. While exposure possibility exists during handling, wear safety goggles with side shields or safety goggles with anti-fog feature (when used with half-mask).
Skin protection
Hands protection: wear safety gloves made from natural, nitrile or butyl rubber.
Material for gloves: Selection of suitable gloves depends not only from the material but also from make and quality which may differ from producer to producer. Resistance of material used for production of gloves can be determined after conducting of tests. Accurate lifetime of gloves must be specified by their producer.
Other: Avoid skin contact.
Protection of respiratory tract
Avoid inhalation of fines. When concentration of substance is stable and known, personal protection measures should be selected with taking into consideration concentrations present in a given workstation, duration of exposure, actions performed by employee and recommendations given by the producer of personal protection equipment. In emergency situations use canister absorbing organic substances combined with mask or half-mask.

Thermal hazards:
Not applicable.
Biological monitoring:
Not defined.
Environmental exposure controls:
Permissible values of contamination indices of industrial effluents entering sewage systems – Regulation of Minister of Construction of 14 July 2006 *on methods of fulfilment of obligations of industrial effluent suppliers and conditions for introducing of effluents into sewage facilities* (L.J. no. 136/2006, item 964) not defined.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	light brown paste
Smell:	characteristic
pH:	not applicable
Boiling point:	not applicable
Melting point:	not determined
Ignition point:	> 150°C
Autoignition point:	not determined
Explosion limits:	not applicable
Vapour pressure:	not determined
Specific gravity:	not determined
Density:	approx. 1.1 g/cm3 (80°C)
Vapour density:	not determined
Solubility in water:	not soluble
Vaporization rate:	not determined
Volatile compounds:	not applicable
Viscosity:	not determined

9.2 Other information:

No other test results..

SECTION 10: Stability and reactivity

10.1 Reactivity

Unknown

10.2 Chemical stability

Stable when appropriate conditions of storage and use are kept.

10.3 Possibility of hazarduous reactions:

Hazardous polymerization not anticipated.

10.4 Conditions to avoid

Unknown

10.5 Non-conforming materials:

Avoid contact with strong oxidizers.

10.6 Hazardous decomposition products:

Carbon oxides,

SECTION 11: Toxicological information

11.1 Information on toxicological effects

a) acute toxicity: not shown
ROSIN, LC50 (inhalation in rats) = 110 mg/m3
SUCCINIC ANHYDRIDE LD50 (oral, rat) = 1.510 mg/kg
b) irritating action: not shown

c) corrosive action: not shown
d) sensitizing action: may cause allergic skin reaction.
e) toxicity for repeated dose: data not available
f) carcinogenicity: not shown
g) mutagenicity: not shown
h) toxicity for reproduction: not show

Information concerning propable routes of exposure
Inhalation :
May cause irritation of the mucous membranes of the upper respiratory tract.
Skin contact
Avoid skin contact. Can cause sensitization in when contact with skin.
Eyes contact
Avoid eye contact. Can be irritating to eyes.
Swallowing
Ingestion may cause heavy irritation of the digestive tract, severe abdominal pain, nausea and vomiting.

Delayed, immediate and chronic effects of short and long term exposure:
Data not available
Effects of interaction:
Data not 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. The product is low volatile, does not pose the risk for ambient air, is insoluble in water, congeals in contact with water.

12.1 Toxicity:
Data not available.

12.2 Persistence and degradability:
Data not available.

12.3 Bioaccumulation capacity:
Data not available.

12.4 Soil mobility:
Data not available.

12.5 Assessment of the pbt and vpvb criteria:
No data available.

12.6 Other harmful effects:
No data available.

SECTION 13: Disposal considerations

13.1 Waste disposal methods:
Used product
Do not remove to sewage system. Prevent contamination of surface and subterranean water. Do not remove together with municipal waste. Combust in hazardous waste incineration plant in presence of inflammable materials. Procedure for disposal of collected waste has to be agreed upon with Environmental Protection Department of the Voivodship or Poviat Office.
To be disposed of as hazardous waste.
code: 11 05 04 spent flux (regulation of the Ministry of Environment, L.J. no. 112/2001, item 1206).

Contaminated packaging
Emptied disposable packaging transfer to authorized waste processing business.
Packaging code: 15 01 10 Packaging containing remnants of hazardous substances or contaminated with these substances (regulation of the Ministry of Environment, L.J. no. 112/2001, item 1206).

EC rules on wastes:
Directive no. 75/442/EEC of the Council on wastes, Directive no. 91/689/EEC of the Council on hazardous wastes, Commission Decision no. 2000/532/EC of 3 May 2000 establishing a list of hazardous wastes, OJL 226/3 of 6 September 2000, together with amending decisions.

SECTION 14: Transport information

14.1 UN number: Not applicable, product not classified as hazardous in transport.

14.2 UN proper shipping name: Not applicable, product not classified as hazardous in transport.

14.3 Transport hazard class: Not applicable, product not classified as hazardous in transport.

14.4 Packing group: Not applicable, product not classified as hazardous in transport.

14.5 Environmental hazards: Not applicable, product not classified as hazardous in transport.

14.6 Special precautions for end users: Not applicable, product not classified as hazardous in transport.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable, product not classified as hazardous in transport.

SECTION 15: Regulatory Information

15.1 Safety, health and environment legislation specific for the substance or mixture
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of December 18th, 2006, on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as amended
COMMISSION REGULATION (EU) No 453/2011 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).
Act of February 25th, 2011 on chemical substances and their mixtures (J.oL. No. 63, item 322).
Regulation of the Health Minister dated September 2nd, 2003 on the criteria and method for classification of chemical substances and preparations (J.oL. No. 171, item 1666 as amended).
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 3rd, 2009 on labelling of packaging for dangerous substances and preparations and certain chemical preparations. (J.oL. No. 53, item 439).
Regulation of the Minister of the Environment dated April 23rd 2004 on determination of packaging labelling designs (J.oL. No. 94, item 927).
Regulation of the Minister of Health dated April 29th, 2010 on dangerous substances and preparations in packagings with child-resistant fastenings and tactile warning of danger (J. oL. No. 83, item 544).
Act dated April 27th 2001 on waste (J.oL. No. 62, item 628 as amended).
Act of May 11th, 2001 on packaging and packaging waste (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 waste, Council Directive No. 91/689/EEC on dangerous waste, Decision of the Commission No. 2000/532/EC of May 3rd, 2000 with wastes list, OJ No. L 226/3 of September 6th, 2000, together with the amending decisions.
Act of October 28th, 2002 on dangerous goods transported by road (J.oL. No. 199, item 1671 as amended)
Governmental declaration dated January 16th, 2009 on entry into effect of amendments to enclosures 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 as amended).
ADR Regulations - legal status from January 1st, 2011.
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, item 1833 as amended).
Regulation of the Minister of Health dated December 1st, 2004 on substances, preparations, agents of technological processes having a carcinogenic or mutagenic impact in the work environment (J.oL. No. 280, item 2771 as amended).
Regulation of the Minister of Health dated December 30th 2004 on hygiene and safety of work related with the occurrence of chemical agents at workplace (J. oL. No. 11/2005, item 86 as amended).
Regulation of the Minister of the Environmentdated December 9th, 2003 on substances that pose particular hazard to the environment (J.oL. No. 217, item 2141).

15.2 Assessment of Chemical Safety:
No assessment of chemical safety of the mixture.

SECTION 16: Other information

All the data presented herein are based on current status of our knowledge. The Safety Data Sheet has been developed on the basis of Product Data Sheet and data provided by the producer. Consumers of our products must take into consideration legal regulations and other arrangements in force.
Other sources of basic data used for preparation of this Safety Data Sheet:

- ♣ Computer Database RTECS (Registry of Toxic Effects of Chemical Substances), developed by National Institute for Occupational Safety and Health, 2005.
- ♣ Computer Database – Material Safety Data Sheets, Developed by Central Institute for Labour Protection – National Research Institute, 2005.
- ♣ Harmful agents and impacts in the work environment – permissible values – issued by Central Institute for Labour Protection – National Research Institute, 2005.
- ♣ Computer Database EINECS, 2005.
- ♣ Annex I to Regulation (EC) 453/2010 of 20 May 2010.

R- and H-phrases:
R22 – Harmful if swallowed
R36/37 – Irritating to eyes and respiratory system
R43 – May cause sensitisation by skin contact
H302 – Harmful if swallowed
H317 – Can cause allergic response of skin.

H319 – Irritating to eyes;
H335 – May cause respiratory irritation.

Description of used abbreviations, acronyms and symbols:
Xi –irritating product
Skin Sens. 1 – Sensitizing action to respiratory tract and skin cat. 1
Eye Irrit. 2 –Irritating action to eyes cat. 2
Acute Tox. 4 – acute toxicity category.4
STOT SE 3 – specific target organ toxicity (single exposure) - category 3

TLV – threshold limit value
TLV-C– ceiling limit
TLV-STEL – Short-term exposure limit

Training:
Prior commencement of work with the product employees should attend mandatory training in connection with occurrence of chemical agents in the work environment. Risk assessment in the workstations, related to occurrence of chemical agents has to be performed and documented and its results communicated to the personnel.