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

1.1 Product identification Kontakt IPA plus

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

Identified applications: Cleaning preparation for use in electronics and

electrotechnics, intended for preservation of optical devices.

Applications advised against: not determined

1.3 Data on the supplier of the data sheet:

PRODUCER AG Termopasty Grzegorz Gąsowski

18-218 Sokoły, ul. Kolejowa 33 E, tel./fax (0 86) 274 13 42

email address of person

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

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

F; R11 Xi; R36 R67

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

Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 **Health hazards**

Causes serious eve irritation. May cause drowsiness or dizziness.

Environmental hazards

Not classified as dangerous to the environment.

Physical/chemical hazards

Highly flammable liquid and vapour.

The product is subject to obligatory labelling

2.2 Label elements:





Hazard symbols: Danger Hazard statement(s) (H):

H225 - Highly flammable liquid and vapour.

H319 – Irritating to eyes.

H336 – May cause drowsiness or dizziness

Precautionary statement(s) (P):

P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking

P241 – Use explosion-proof electrical/ventilating/light/.../equipment.

P280 – Wear protective gloves/protective clothing/eye protection/face protection

P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P312 – Call a POISON CENTER or doctor/physician if you feel unwell

P370+P378 – In case of fire: Use water/powder/foam fire-extinguishing for extinction

2.3 Other hazards:

Vapours may form explosive mixture with air.

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:

| | Contents % | Classification acc. to 67/548/EEC | CLP Classification | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------|-------------------------------------------|------------------------------------------------------|--|
| Identification of Product | | | Hazard Class and Category Codes | Codes of phrases indicating the type of hazard | |
| Isopropyl alcohol <u>CAS No</u> : 67-63-0 <u>EC No</u> : 200-661-7 <u>Index No</u> : 603-117-00-0 <u>REACH No</u> : the substance is subject to the provisions of transitional period | 80-100 | F; R11 Xi; R36 R67 | Flam. Liq. 2 Eye Irrit. 2 STOT SE 3 | H225 H319 H336 | |

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

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Skin contact:

Take off the contaminated clothes. Wash contaminated skin with plenty of water with soap. If skin irritation persists, seek medical advice.

Eyes contact:

Flush eyes with large amount of water for approx. 15 minutes. Avoid strong water jets to avoid the cornea damaging hazard. Should the irritation persist seek medical assistance.

Inhalation:

Remove the injured to fresh air. Provide medical assistance if no immediate improvement is observed.

Swallowing:

Contact a doctor immediately. Do not induce vomiting.

4.2 Most important acute and delayed symptoms and effects of exposure

Skin contact: reddening, burning sensation.

Eyes contact: lacrimation, reddening, pain, itching of the eyelids

Respiratory system: headache, dizziness, drowsiness and other symptoms from of central nervous system

Alimentary tract: after swallowing the substance can be aspiration into the lungs causing chemical pneumonitis

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

Decision on the treatment method is made by a physician after assessment of the condition of an injured person.

SECTION 5: Fire Fighting Procedure

5.1 Extinguishing media

Suitable extinguishing media

Alcohol resistant foam, carbon dioxide, extinguishing powders, water - dispersed currents

Extinguishing media to be avoided:

Do not use water jets.

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5.2 Special hazards arising from substance or mixture:

Highly flammable liquid. Vapor form explosive mixtures with air. Vapors are heavier than air and may accumulate near the ground and in the lower parts of rooms.

5.3 Information for fire brigade

Do not allow extinguishing media to get into the sewage system and water courses. Notify the neighbourhood about the fire. Remove all 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

6.1 Personal precautions, protective equipment and emergency procedures:

For persons that are not members of a team providing help: notify proper services on the emergency. Remove persons that do not participate in rescue action from the area of danger.

For persons providing help: Ensure adequate ventilation, use personal protection equipment.

6.2 Environmental precautions:

In case of emergency avoid releasing into the environment. Secure the product against getting into the sewers, surface and groundwater and to soil. Try to collect as much as possible into containers for further disposal.

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

Remove sources of ignition (extinguish open fire, non-smoking and use sparking tools); Secure the sink basins; Avoid direct contact with the released substance; Vapor dispersed with sprayed streams of water; If possible, stop the leak (shut off inlet liquid, seal; Damaged container placed in an airtight protective packaging);

6.4 References to other sections:

Handling of product wastes - see Section 13 of the Data Sheet.

Personal Protection Equipment - see Section 8.

SECTION 7: Substance/Mixture Handling and Storage

7.1 Precautions for safe handling

Use far from sources of fire and glowing materials. Do not breathe the vapour, spray. The rooms must be equipped with adequate local and general ventilation. If the ventilation is not adequate, use self-contained breathing apparatus. Store far from any sources of heat and fire. Follow the health and safety at work rules: do not eat, drink nor smoke at workplace, wash hands after use, take off contaminated clothing and protective equipment before entering into rooms intended for having meals.

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

Store in closable containers in well ventilated place far away from sources of heat and ignition system and direct sunlight.

7.3 Speficic end use(s):

Cleaning preparation for use in electronics and electrotechnics, intended for preservation of optical devices. 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:

| Substan | ce name: | CAS No. | TLV | TLV-STEL | TLV-CL |
|------------|----------|---------|----------------------|------------------------|----------------|
| 1. Propan- | ·2-ol* | 67-63-0 | 900 mg/m^3 | 1200 mg/m ³ | not determined |

Sampling in the air of workplaces

Regulation of MZ [Minister of Health] dated 20 April 2005 on examinations 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 Purity Protection.

Measurement of concentrations of chemical substances and industrial dusts in the air at working environment.

The rules of air sampling in the working environment and interpretation of the results; PN-Z-04008-

7:2002/Az1:2004 Amendment to the Standard on Air Purity Protection. Measurements of concentrations of chemical substances and industrial dusts in the workplace atmosphere.

The rules of air sampling in the working environment and interpretation of the results.

Propan-2-ol: PN-92/Z-04224/02;

8.2 Exposure control

Appropriate technical means of 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 contact with eyes. While handling the product, it there is a risk of exposure, wear protective goggles that do not steam up.

Skin protection

Hands protection: Avoid skin contact. Wear protective gloves made of nitrile rubber, butyl rubber or PVA. In case of emergency wear suitable protective clothes made of coated materials.

Gloves material:

Selection of appropriate gloves depends not only upon the material, but also upon the brand and quality differences at various manufacturers. Resistance of material used to produce gloves may be determined upon performance of the tests. The exact time of gloves damaging must be determined by the manufacturer.

In case of emergency wear suitable protective clothes made of coated materials.

Protection of respiratory tract

Avoid inhaling vapours of the liquid. If the concentration of a substance is determined and known, the selection of PPE must take into account the concentration of the substances occurring in a given workstation, time of exposure, activities performed by employee and recommendations provided for by the manufacturer of PPE. In the emergency use organic vapour filter combined with a mask or a half-mask.

Thermal hazards:

Not applicable.

Biological monitoring:

Not defined.

Environmental exposure controls:

Permissible level of substances in air – Regulation of the Minister of Environment of 3 March 2008 *on levels of selected substances in air* (L.J. 47/2008, item 281): not defined.

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: liquid, transparent Codour: characteristic

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pH: not applicable

Boiling point: 82°C

Melting point: -89°C

Flash point 15°C

Autoignition point: >350°C

Explosion limits: Upper limit 13 % Vol.; Lower limit 2 % Vol. Vapour pressure: temp. 20°C : 43 hPa / temp. 30°C : 76 hPa /

Specific gravity: not determined Density: 0,785 g/cm³ Solubility in water: solube

Evaporation rate: not determined Viscosity: 2,86 mPa·s (15°C)

9.2 Other information:

No additional results of tests.

SECTION 10: Stability and Reactivity

10.1 Reactivity

The storage and handling conditions, in accordance with the intended use - lack of reactivity. Enters into reaction with strong acids and strong oxidizing agents.

10.2 Chemical stability

Stable when proper storage and use conditions are maintained.

10.3 Possibility of hazarduous reactions:

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Avoid elevated temperatures, direct sunlight, hot surfaces and open fire

10.5 Non-conforming materials:

Aldehydes, amines, strong oxidizers, corrosives, chlorinated, alkali metals.

10.6 Hazardous decomposition products:

It is not degradable at ambient temperatures

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

a) acute toxicity:

Propan-2-ol

LD50 (oral, rat): 5840 mg/kg, LD50 (skin, rabbit): 13900 mg/kg, LC50 (inhaling, rat) above 25000 mg/l

b) irritation: irritating to eyes, can irritate the skin

c) corrosion: nod) sensitization: no

e) toxicity for repeated exposure: may cause drowsiness or dizziness

f) carcinogenicity: no g) mutagenicity: no

h) reproductive toxicity: no

Information concerning propable routes of exposure

Inhalation

May cause irritation of the mucous membranes of the upper respiratory tract, headache and dizziness.

Skin contact

Avoid contact with skin. may cause defatting and dermatitis.

Eves contact

Avoid contact with eyes. It irritates eyes.

Swallowing

After swallowing a small amount of liquid can undergo aspiration to the lungs causing pneumonia or pulmonary edema.

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

No data available.

Interactive effects:

No data available.

SECTION 12: Ecological information

Detailed tests were not performed therefore no exact data are available. The mixture is not classified as dangerous to the environment. Do not allow the preparation to get and to spread in soil, sewage system, ground waters and water courses.

12.1 Toxicity:

LC50: 9640 mg/l/96h (Pimephales promelas)

LC50: 9714 mg/l/24h (Daphnia magna)

12.2 Persistence and degradability:

The substance is readily both biodegradable

12.3 Bioaccumulation capacity:

It is not expected

12.4 Soil mobility:

Substance is soluble in water, mobile substance in the soil

12.5 Assessment of the pbt and vpvb criteria:

No data available.

12.6 Other harmful effects:

No data available.

SECTION 13: Handling of Wastes

13.1 Waste disposal methods:

Used product

Do not remove to the sewage system. Do not allow pollution of surface and ground waters. Do not remove together with municipal wastes. Burn in the dangerous waste incineration plant in presence of flammable materials. Disposal of collected waste should be agreed upon with the Environment Protection Department of a Voivodship Office or Starosty Office.

(Regulation of the Environment Ministry J. oL. No. 112/2001 item 1206).

Contaminated packaging

Emptied disposable packagings should be forwarded to an authorized wastes recipient. Packaging code: 15 01 02 (Regulation of the Environment Ministry J. oL. No. 112/2001 item 1206).

EC rules on wastes:

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.

14.1 UN Number (ONZ number): 1219

14.2 Correct UN name for transport purposes: ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3 Transport hazard class(es): 3

14.4 Packaging group: II

14.5 Hazards to the environment: No

14.6 Particular precautions for users: no data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code: no data available.

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.o.L. 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. o.L. No. 83, item 544).

Act dated April 27th 2001 on waste (J.o.L. No. 62, item 628 as amended).

Act of May 11th, 2001 on packaging and packaging waste (J.o.L. No. 63, item 638 as amended).

Regulation of the Minister of Environment dated September 27th, 2001 on wastes catalogue (J.o.L. 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.o.L. No. 217, item 2141).

15.2 Assessment of Chemical Safety:

No assessment of chemical safety of the mixture.

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All the data are based on the current level of our knowledge. The Data Sheet was prepared based on the data sheets and details received from the manufacturer. Recipients of our product must take into account the existing legal provisions and other regulations.

Other sources of key data necessary to prepare the Data Sheet:

- Computer Database RTECS /Registry of Toxic Effects of Chemical Substances/, prepared by the National Institute for Occupational Safety and Health, 2005.
- Computer Database Material Data Safety Sheets elaborated by the Central Institute of Labour Protection National Research Institute, 2005.
- "Harmful factors at working environment permissible limits" issued by the Central Institute of Labour Protection National Research Institute, 2005.
- Computer Data Base EINECS, 2005.
- Annex I to the Regulation (EU) 453/2010 dated May 20th, 2010

R and H Phrases:

R11 - Highly flammable

R36 - Irritating to eyes and skin;

R67 – vapours may cause drowsiness and dizziness

H225 – Extremely flammable liquid and vapours.

H319 – Irritating to eyes.

H336 – May cause drowsiness and dizziness

Description of abbreviations, acronyms and symbols:

 \mathbf{F} – highly flammable product;

Xi – irritant;

Flam. Liq. 2 – Liquid, flammable substance, cat. 2

Eye Irrit. 2 – Irritating to eyes, cat. 2

STOT SE 3 – Specific target organ toxicity — single exposure STOT single, exp. cat.

TLV - threshold limit value

TLV-STEL – short-term exposure limit

TLV-CL – ceiling limit

Trainings:

Before start of work with the product it is obligatory to perform a Health and Safety at Work Training for employee in connection to the occurrence of chemical agents in the work environment. Carry out, document and acquaint the employees with the results of professional risk assessment on workstation connected with the occurrence of chemical agents.