

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

1.1 Product identifier

Trade name: FLUX TKP-101

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

RELEVANT IDENTIFIED USES:

Soft soldering manual and automatic

USES ADVISED AGAINST:

Not determined

1.3 Details of the supplier of the safety data sheet

SUPPLIER:

Cynel-Unipress Sp. z o. o.

ADDRESS:

ul. Białolecka 231B, 03-253 Warszawa, Poland

TELEPHONE:

+48 22 519 29 48

E-MAIL ADDRESS:

marketing@cynel.com.pl

1.4 Emergency telephone number

Emergency Phone in Poland (open: 8.00 a.m.-4.00 p.m.)

+48 22 519 29 48 or +48 22 519 29 49

Section 2: Hazards identification

2.1 Classification of the substance or mixture

CLASSIFICATION ACCORDING TO REGULATION (EC) No 1272/2008**Sensitization, Skin hazard category 1 (Skin Sens 1)**

May cause an allergic skin reaction, (H317)

Serious eye damage/eye irritation, Hazard Category 2 (Eye Irrit 2)

Causes serious eye irritation, (H319)

Flammable liquids, Hazard Category 2 (Flam Liq. 2)

Highly flammable liquid and vapour, (H225)

Specific target organ toxicity — Single exposure, Hazard Category 3, Narcosis (STOT SE 3)

May cause drowsiness or dizziness, (H336)

HARMFUL EFFECTS OF HUMAN HEALTH EFFECTS:

Skin contact may cause itching, local redness and skin dry. It is corrosive and harmful to eyes. Contamination of eyes results in lachrymation, pain, redness of conjunctivas with a risk of damage to cornea. Fumes are irritating to skin, eyes and mucous membranes. High doses can lead to narcotic effects. May cause drowsiness or dizziness.

EFFECTS OF OPERATION ON THE ENVIRONMENT:

If you use rightly, does not pose a threat to the environment.

EFFECTS OF ACTION RELATED TO PHYSICOCHEMICAL PROPERTIES:

In case of insufficient ventilation, explosive flammable mixtures may develop.

2.2 Label elements

HAZARD SYMBOLS:



SIGNAL WORD

Danger

SUBSTANCE NAME FOR LABELING:

Contains: rosin, propan-2-ol

RISK PHRASES:

H225 Highly flammable liquid and vapour

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

SAFETY PHRASES:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/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.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container to designated the recipient of waste

SUPPLEMENTAL HAZARD INFORMATION

Contains: rosin, propan 2 -ol

EUH066 Repeated exposure may cause skin dryness or cracking

2.3 Other hazards

Vapors may form explosive mixtures with air at temperatures above flash point. The substances in mixture do not meet the PBT and vPvB criteria in accordance with Annex XIII of Regulation 1907/2006 (REACH).

The mixture does not contain substances included on the list established in accordance with Article 59(1) as having endocrine disrupting properties and substances with endocrine disrupting properties in accordance with the criteria laid down in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

The criteria for PBT or vPvB according to Annex XIII of Regulation REACH do not apply to inorganic substances.

Section 3: Composition/Information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures:

PROPAN 2 -OL

Range of percentages: 60 – 99 %
CAS number: 67-63-0
EC number: 200-661-7
UE number: 603-117-00-0
Registration number: 01-2119457558-25-0000
Classification acc. to 1272/2008/EC: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
Substance with defined value of the permissible concentration in the working environment at Community level

ROSIN:

Range of percentages: 5 – 25 %
CAS number: 8050-09-7
EC number: 232-475-7
Registration number: 01-2119480418-32-XXXX
Classification acc. to 1272/2008/EC: Skin Sens 1 H317
Full text of each relevant H phrase is given in section 16.

Section 4: First aid measures

4.1 Description of first aid measures

GENERAL INFORMATION:

If you store in a well-ventilated place and keep container tightly closed at room temperature (outside of the dangers of a mechanical nature), mixture does not pose risk to human health and life. But in the process of soldering the main risks are: high temperature, solder fumes and vapours, fire

SKIN CONTACT:

Wear protective gloves for example: nitrile gloves (thickness $0,4 \pm 0,05$ mm, breakthrough time > 480 min)

If on skin: wash with plenty of water with soap. Take off immediately all contaminated clothing and wash it before reuse. May cause itching, local redness and skin dry Possible thermal burn during soldering. Damaged skin rinse with cold water. Apply a sterile dressing. Consult with the doctor.

EYE CONTACT:

Wear protective goggles which protects from chemical splashes.

If filings get into eyes, immediately wash out with plenty of water with the eyelid hold wide open, for at least 10-15 min. Remove any contact lenses. Obtain medical attention if necessary.

INGESTION:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

INHALATION:

Take victim to fresh air and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

EYE CONTACT:

May cause irritation, redness, tearing. Contamination of eyes results in lachrymation, pain, redness of conjunctivas with a risk of damage to cornea.

SKIN CONTACT:

may cause redness, dry skin, burning sensation, burns (during soldering)

INHALATION:

irritation of respiratory tract, cough, headaches and dizziness

4.3 Indication of any immediate medical attention and special treatment needed

A decision regarding further medical treatment by a physician should be made after thorough examination of the injured.

Section 5: Firefighting measures

5.1 Extinguishing media

SUITABLE EXTINGUISHING MEDIA:

CO₂, extinguishing powder, foam, water spray

UNSUITABLE EXTINGUISHING MEDIA:

water jet – risk of the propagation of the flame

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. During combustion may release toxic gases, vapors, and fumes. It contain volatile organic compounds. Vapours are heavier than air and may travel along

the floor. Vapours may form explosive mixtures with air. It should be borne in mind that it is possibility of the auto re-ignition. Do not inhale combustion products – it can be dangerous for health. Thermal decomposition products: carbon dioxide, carbon monoxide, methanol, aldehydes, methane, ethane and acid.

5.3 Advice for firefighters

Full protective firefighting gear, self-contained breathing apparatus and protective firefighting clothing should be worn. Use water to keep fire exposed containers cool. If possible, remove containers that are not covered by fire from the danger area.

Heating package causes rise in pressure with risk of bursting.

In case of fire and large quantities: evacuate area. It is possible to explosion, fight a fire from the distance. Do not allow to enter sewage system into groundwater or tanks water.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

FOR NON-EMERGENCY PERSONNEL

Use "anti-static and fire-resistant" protective clothing, gloves made of nitrile (thickness $0,4 \pm 0,05$ mm, breakthrough time > 480 min). Use safety goggles. Do not inhale dust. Remove sources of ignition. Limit the access to the breakdown area for the outsiders, until the suitable cleaning operations are completed. Do not allow entry - unnecessary and unprotected personnel. Do not breathe vapor or mist. Ensure proper ventilation. In case of insufficient ventilation, wear safety mask. Ensure that the consequences of failure are removed by trained personnel only.

FOR EMERGENCY RESPONDERS

Use protective firefighting clothing, full protective firefighting gear, self-contained breathing apparatus. Do not inhale dust. Remove sources of ignition. Mark the contamination of the area. Eliminate all sources of ignition. There must be good ventilation and airing of the rooms.

6.2 Environmental precautions

Prevent entry into drains, surface and ground water and soil. In case of release of large amounts of the product, notify the appropriate emergency services.

6.3 Methods and material for containment and cleaning up

Pick it up mechanically. The waste must be collected and transported in sealed container. Hand over the waste to waste management companies.

As for the remaining quantities, should be collected by non-flammable materials such as: dry earth, sand, vermiculite or ground sandstone.

6.4 Reference to other sections

Appropriate conduct with waste product – section 13

Section 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated place. Do not breathe vapour. Handle in accordance with good occupational hygiene and safety practices. Before break and after work wash hands carefully. Avoid contact with eyes and skin. Do not breathe fumes in the process of soldering. Do not eat, drink and smoke during the handling. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original, tightly closed containers in dry and well-ventilated place. Keep away from strong acids, oxidants, self-igniting and highly flammable solids. Store at temp. 5-30°C. The recommended humidity level of 20-80%. Keep away from food and beverages. Keep away from open flames, hot surfaces and sources of ignition.

7.3 Specific end use(s)

Applications are listed in section 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

MAXIMUM ADMISSIBLE CONCENTRATIONS AND INTENSITIES FOR AGENTS HARMFUL TO HEALTH IN THE WORKING ENVIRONMENT IN POLAND, Dz.U. 2018 POZ. 1286 AS AMENDED

substance	NDS	NDSch	NDSP	Number of fibers	Remark *
Propan-2-ol	900 mg/m ³	1200 mg/m ³	-	-	skin

* Labeling the substance with the term "skin" means that the absorption of substances through the skin can be just as important as with inhalation

LIST OF MAK AND BAT VALUES 2021 COMMISSION FOR THE INVESTIGATION OF HEALTH HAZARDS OF CHEMICAL COMPOUNDS IN THE WORK AREA

substance	MAK		Spzbg	SchwGr
Propan-2-ol	200 ml/m ³	500 mg/m ³	II (2)	C

Please check also any national occupational exposure limit values in your country.

Follow the procedures for monitoring the concentrations of hazardous components in the air and the procedures for the control of air quality in the workplace - as long as they are available and reasonable on a given workplace - according to the relevant European Standards. Take into account the conditions at the site of exposure and appropriate measurement methodology adapted to working conditions.

PROPAN-2-OL

DNEL (Long term exposure) workers

500 mg/m³ (inhalation)
888 mg/kg bw (dermal)
DNEL (Long term exposure) general population
26 mg/kg bw (oral)
319 mg/kg bw (dermal)
89 mg/m³ (inhalation)

8.2 Exposure controls

APPROPRIATE ENGINEERING CONTROLS

Ensure adequate general and local ventilation. In case of insufficient ventilation use respiratory protection. When handling do not eat, drink, take medicine and smoke. Before break and after work carefully wash hands. Avoid contact with skin, eyes and inhalation of fumes and vapors produced during processing of the product.

Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection

In the event of exceedances of limit values use respiratory protection with filter type ABEK.

If you work in closed spaces or where there is a risk of an uncontrolled expansion use insulating respiratory protective equipment.

Skin, hand and body protection

Use "anti-static and fire-resistant" protective clothing, gloves made of nitrile (thickness 0,4 ± 0,05 mm, breakthrough time > 480 min). In the case of long-term direct action, use rubber gloves (butyl 0,5 mm, breakthrough time > 480 min, polychloroprene 0,5 mm, breakthrough time > 480 min).

Incompatible material for gloves: PVC (Polyvinyl Chloride), NR (Natural Rubber, Latex natural).

Eye protection

Use safety goggles that protect against splatter during soldering. Tightly sealed safety glasses.

Use only equipment that are resistant to solvent.

Handle in accordance with good industrial hygiene and safety procedures. Do not allow the crossing of the environment, the work place concentration limits for hazardous constituents.

After work, remove soiled clothing. Wash hands and face thoroughly after handling product, before eating, smoking and at the end of the working period. Do not eat, drink or smoke when working.

ENVIRONMENTAL EXPOSURE CONTROLS

Prevent entry into sewage collection system and watercourses.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state

liquid

Colour	light yellow
Odour	alcoholic
Melting point/freezing point	– 89°C
Boiling point or initial boiling point and boiling range	79°C
Flammability	flammable
Lower and upper explosion limit	not applicable
Flash point	< 12 °C (Pensky-Martens closed cup method, ISO 2719)
Auto-ignition temperature	no self-ignition
Decomposition temperature	not determined
pH	7
Kinematic viscosity	not determined
Solubility	soluble in water
Partition coefficient n-octanol/water (log value)	not determined
Vapour pressure	not determinate
Density and/or relative density	0,825 g/cm ³
Relative vapour density	not determined
Particle characteristics	not determined

9.2 Other safety information

No relevant physical and chemical parameters for safe use of the mixture

Section 10: Stability and reactivity

10.1 Reactivity

Highly flammable liquid and vapour. Vapors may form explosive mixtures with air

10.2 Chemical stability

The product is stable under normal conditions.

10.3 Possibility of hazardous reactions

In contact with incompatible materials reacts violently with emission of heat. Warm up causes pressure increase: danger of caving and explosion

10.4 Conditions to avoid

Protects against sun rays, temperatures above 35°C, heat and hot surfaces, sources of sparking, open flames and other sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents and acids.

10.6 Hazardous decomposition products

Thermal decomposition depends largely on the conditions. A complex mixture can decompose to carbon monoxide, carbon dioxide.

Section 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

ACUTE TOXICITY

based on available data, the classification criteria are not met

TOXICITY OF COMPOUNDS:

Rosin

It does not show acute toxicity after oral or dermal exposure. However, low vapor pressure precludes inhalation exposure.

LD50 (oral, rat) 2800 mg/kg

LD50 (skin, rat) > 2 000 mg/kg

Propan-2-ol

LD50 (oral, rat) 5840 mg/kg bw (OECD 401)

LD50 (skin, rabbit) 13900 mg/kg bw (OECD 402)

LC50 (inhalation, rat) >25 mg/l; 6h; (OECD 403)

SKIN CORROSION/IRRITATION

may cause an allergic skin reaction

SERIOUS EYE DAMAGE/IRRITATION

causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

may cause an allergic skin reaction

GERM CELL MUTAGENICITY

based on available data, the classification criteria are not met

CARCINOGENICITY

based on available data, the classification criteria are not met

REPRODUCTIVE TOXICITY

based on available data, the classification criteria are not met

STOT-SINGLE EXPOSURE

may cause drowsiness or dizziness

STOT-REPEATED EXPOSURE

based on available data, the classification criteria are not met

ASPIRATION HAZARD

based on available data, the classification criteria are not met

HEALTH EFFECTS OF LOCAL EXPOSURE

Skin contact:

may cause concern as a result of skin dryness, flaking or cracking
may cause redness, dry skin, burning sensation, blisters (during soldering)

Eye contact:

may cause irritation, redness, tearing. Contamination of eyes results in lachrymation, pain, redness of conjunctivas with a risk of damage to cornea.

Ingestion:

may cause stomach disorders (nausea, vomiting, abdominal pain)

Inhalation:

may cause cough, headaches and dizziness

11.2 Information on other hazards

The mixture does not cause adverse health effects due to endocrine disrupting properties.

Section 12: Ecological information

12.1 Toxicity

No specific toxicity test results for the mixture

Toxicity of component:

Rosin

LC50: ≥ 1000 mg/l/96h (Brachydanio rerio)
LC50: 46 mg/l/48h (Daphnia magna)
EC50: 59 mg/l/72h (Pseudokirchneriella subcapitata)

Propan-2-ol

EC50: 1.800 mg/L/7d (Green algae)
EC50: 10.000 mg/L/48h (Daphnia magna)
LC50: 9.640 mg/L/96h (Interstitial gap)
LC50: 2.104 mg/kg/3d (Lactuca sativa)

12.2 Persistence and degradability

Not data available

Rosin

Easily biodegradable in water

Propan-2-ol

BOD 5: 53 %
ThSB: 72 %

12.3 Bioaccumulative potential

Not data available

Rosin

BCF: 56,23

Propan-2-ol

LogP_{ow}: <1

12.4 Mobility in soil

Not data available

12.5 Results of PBT and vPvB assessment

The mixture does not meet the criteria for PBT or vPvB

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7 Other adverse effects

There is a risk to the aquatic environment when we will have high concentration in wastewater.

Section 13: Disposal considerations

13.1 Waste treatment methods

Do not dispose of the product together with domestic waste, do not release to sewage system. Do not allow contamination of groundwater and surface water. Dispose of this material and its container safely. Be careful when handling emptied containers that have not been cleaned thoroughly. Prevent the penetration of the product into the soil and watercourses.

Recommended way of disposing of waste: hand over to waste management companies

Contaminated packaging (after a thorough emptying) and unused product to pass to the designated recipient of waste.

Please check also regulations in your country.

Section 14: Transport information

14.1 UN number or ID number

1993

14.2 UN proper shipping name

FLAMMABLE LIQUID, N.O.S. [propan-2-ol]

14.3 Transport hazard class(es)

3

14.4 Packing group

II

14.5 Environmental hazards

The mixture is not classified as dangerous for the environment in accordance with the criteria set out in the transport rules.

14.6 Special precautions for user

Wear adequate personal protective equipment. Remove any ignition sources. See section 8.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

1. 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.
2. 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 with later changes (adaptation to technical and scientific progress 1-18 ATP)
3. DIRECTIVE 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations
4. Commission Regulation (EC) No 790/2009 of 10 August 2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
5. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
6. Council Directive 91/689/EEC of 12 December 1991 on hazardous waste
7. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
8. European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste
9. European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), concluded in Geneva on 30 September 1957 (Dz. U. Nr 110, poz. 641).
10. List of MAK and BAT Values 2021 Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area
11. Regulation of the Minister of Labour and Social Policy of 12 June 2018 on Maximum Permissible Concentration and Intensity of Agents Harmful to Health in the Working Environment (Dz.U. 2018 poz. 1286 as amended)

15.2 Chemical Safety Assessment

There is no data on the safety assessment for chemical substances contained in the mixture.

Section 16: Other information

TRAININGS

Before commencing working with the product, the user should learn the Health & Safety regulations regarding handling chemicals, and in particular undergo proper workplace training.

EXPLANATION OF ABBREVIATIONS AND ACRONYMS

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
DNEL	Derived No Effect Level
Skin Sens	Sensitization, Skin hazard category 1
Eye Irrit 2	Serious eye damage/eye irritation, Hazard Category 2
Flam Liq. 2	Flammable liquids, Hazard Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Hazard Category 3, Narcosis
H336	May cause drowsiness or dizziness
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
LD50	lethal dose is an indication of the lethal toxicity of a given substance or type of radiation.
LC50	lethal concentration
OECD	Organization for Economic Co-operation and Development
BCF	bio-concentration factor
CAS	unique numerical identifier assigned by Chemical Abstracts Service
WE	unique seven-digit identifier that was assigned to substances for regulatory purposes within the European Union by the European Commission
UN	The four-digit identification number of the material in the UN hazardous materials
NOEC	No Observed Effect Concentration
NDS/MAK	The highest acceptable concentration
NDSch	The highest permissible instantaneous concentration
NDSP	Concentration value of toxic chemical or dust
BOD5	biological oxygen demand
Spzbg	peak limitation category (exceedance factor)
SchwGr	pregnancy group

The information above is based on a current available data concerning the product, but also on the experience and knowledge of the producer in this field. It is neither a quality description of the product nor a guarantee of particular features. It is to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility for improper usage of the information above and also of improper compliance with the legal norms in the field.

[In accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Official Journal of the European Union No L203 z 26.06.2020)]

Other data Classification of the substances based on the information information from ECHA. Classification of mixture was prepared based on the data concerning the contents of dangerous components using calculation method based on the Regulation (EC) No 1272/2008 (CLP). The information contained in the SDS is to describe the product only in terms of safety requirements. The user is the one responsible for creating conditions for the safe use of the product, and assumes the responsibility for the consequences resulting from improper use of this product.

update of the legal acts in section 15.1, card points update: 1.1, 1.3, 2.3, 7.3, 8.1, 9.1, 9.2, 10.3, 11.1, 11.2, 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 14.1, 14.7