



# MATERIAL SAFETY DATA SHEET

[In accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 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 L132 of 29.05.2015)]

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

### 1.1 Product identifiers

#### Liquid flux TE 410

### 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/Fax number: +48 22 519 29 48/ 22 519 29 46

E-mail address : [marketing@cynel.com.pl](mailto:marketing@cynel.com.pl)

### 1.4 Emergency telephone number

Emergency Phone # : 112

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

Highly flammable liquid and vapour; Flam Liq. 2 H225

Causes serious eye irritation; Eye Irrit 2 H319

May cause drowsiness or dizziness; STOT SE 3 H336

### 2.2 Label elements

#### Hazard pictograms:



#### Signal words: Danger

Hazard statements: Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness

#### Precautionary statements:

IF INHALED: Remove person to fresh air and keep comfortable for breathing (P304+P340). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P303+P351+P338). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking (P210). Avoid breathing fume, vapours and spray (P261). Store in a well-ventilated place. Keep container tightly closed (P403+P233).



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## Product identifier

Contain isopropyl alcohol

## 2.3 Other hazards

No information whether the mixture meets criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH

## Section 3. Composition/Information on ingredients

### 3.1 Substances

Not applicable.

### 3.2 Mixtures:

#### isopropyl alcohol:

Range of percentages: < 100,0%  
CAS number: 67-63-0  
EC number: 200-661-7  
Registration number: 01-2119457558-25-0002, 01-2119457558-25-0001  
Classification acc. to 1272/2008/EC: Eye Irrit. 2 H319; Flam. Liq. 2 H225; STOT SE 3 H336

Substance with defined value of the permissible concentration in the working environment at Community level.

#### hexanedioic acid:

Zakres stężenia: < 5,0%  
Numer CAS: 124-04-9  
Numer WE: 204-673-3  
Numer rejestracji właściwej: 01-2119457561-38-XXXX  
Klasyfikacja wg 1272/2008/WE: Eye Irrit. 2 H319

Substance with defined value of the permissible concentration in the working environment at Community level.

For the full text of the H-Statements mentioned in this section, see section 16.

## Section 4. First aid measures

### 4.1 Description of first aid measures

Skin contact: take off contaminated clothes. Wash out skin with plenty of water with soap. Consult a doctor, if symptoms persist.

Eye contact: wash out with plenty of water with the eyelid hold wide open, for 10-15 min. Remove any contact lenses. Avoid powerful water stream – risk of cornea damage. Obtain medical attention.

Ingestion: rinse mouth with water. Do not give anything to drink to an unconscious person. Consult a doctor – show the container or label.

Inhalation: remove to fresh air, keep warm and calm. In case of some symptoms consult a doctor.



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## 4.2 Most important symptoms and effects, both acute and delayed

Eye contact during soldering: may cause irritation, redness, pain.

Skin contact during soldering: may cause skin irritation, redness, burning, pain

After inhalation of fumes soldering: fumes and vapours can cause headaches, dizziness, respiratory tract irritation, danger of cumulative effects.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured.

## Section 5. Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media: CO<sub>2</sub>, extinguishing powder, foam, water spray. Use extinguishing measures that are appropriate to the environment

Unsuitable extinguishing media: water jet – risk of the propagation of the flame

### 5.2 Special hazards arising from the substance or mixture

During combustion may release toxic gases, vapors, and fumes. Do not inhale combustion products – it can be dangerous for health.

### 5.3 Advice for firefighters

Personal protection typical in case of fire. Self-contained breathing apparatus and protective clothing should be worn.

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Use personal protective equipment.

### 6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify the appropriate emergency services.

### 6.3 Methods and material for containment and cleaning up

Pick it up mechanically or absorb with liquid-absorbent material (eg. sand, universal binders, etc.) and place in labeled containers. Treat collected material like a waste. Clear and well ventilate the contaminated site

### 6.4 Reference to other sections

Appropriate conduct with waste product – section 13

Appropriate personal protective equipment – section 8



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## Section 7. Handling and storage

### 7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Ensure adequate ventilation during the soldering process. Before break and after work wash carefully hands. Avoid contact with eyes and skin. Do not breathe fumes in the process of soldering. Unused containers keep tightly closed.

### 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 oxidants, acids and bases. Store at temp. 5-20°C. The recommended level of humidity 20-80% Keep away from food and beverages.

### 7.3 Specific end use(s)

Applications identified are listed in section 1.2

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters\*

Specification	NDS	NDSch	NDSP
isopropyl alcohol:	900 mg/m <sup>3</sup>	1200 mg/m <sup>3</sup>	—
hexanedioic acid	5 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	—

\* Dz. U. 2014 poz. 817 as amended

List of MAK and BAT Values 2014 Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area

Specification	MAK [ppm]	MAK [mg/m <sup>3</sup> ]	Peak limitation	Pregnancy risk group
isopropyl alcohol:	20	500	II (2)	C <sup>20</sup>

C<sup>20</sup> classification in Pregnancy Risk Group C was re-evaluated in 2011 and confirmed

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

### 8.2 Exposure controls

Use the product in accordance with good occupational hygiene and safety practices. Provide local ventilation for every workplace (during soldering processes). When handlings do not eat, drink or smoke. Before break and after work carefully wash hands. Avoid contact with skin and eyes. Ensure a shower and a post for rinsing eyes



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## Hand and body protection

Wear protective gloves and protective clothing. During soldering wear protective clothing that can prevent injuries associated with high temperature of molten solder.

## Eye protection

Use safety glasses.

## Respiratory protection

Under normal operating conditions is not required. In case of high vapour concentrations, exceeding the limit value or failure, wear a mask with vapours absorber.

## Environmental exposure controls

Prevent direct runoff into drains/surface water. Do not contaminate surface water and drainage ditches with chemicals or used containers. Spilled product or uncontrolled spills should be reported to the appropriate authorities in accordance with national and local regulations. Dispose of as chemical waste, accordance with national and local regulations.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

State of aggregation	liquid
Colour:	colourless
Odour	alcoholic
Odour Threshold	no data available
Initial boiling point	78°C
Flash point closed method	
Pensky'ego Martensa crucible PN-EN ISO 2719:	< 12,0 °C
Evaporation rate	no data available
Density (20°C):	0,814– 0,822 g/cm <sup>3</sup>
Density (25°C):	0,802 – 0,812 g/cm <sup>3</sup>
Solubility	soluble in water
Decomposition temperature	no data available
Viscosity	no data available

### 9.2 Other safety information

no data available

## Section 10. Stability and reactivity



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## 10.1 Reactivity

Reactive product. The product does not make dangerous polymerization

## 10.2 Chemical stability

Stable under recommended storage conditions

## 10.3 Possibility of hazardous reactions

Vapours with air may form explosive mixture.

## 10.4 Conditions to avoid

Avoid extreme heat, flames and other sources of ignition

## 10.5 Incompatible materials

Strong acids and alkalis

## 10.6 Hazardous decomposition products

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

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### isopropyl alcohol:

LD50 (oral, rat)	>5000 mg/kg
LD50 (skin, rabbit)	>5000 mg/kg
LC50 (inhalation, rat)	niska toksyczność

#### hexanedioic acid:

LD50 (oral, rat):	5560mg/kg
LD50 (skin, rabbit):	> 7940 mg/kg
LC50 (inhalation, rat):	> 7,7 mg/l/4h

## Section 12. Ecological information

### 12.1 Toxicity

No specific toxicity test results for the mixture

#### Toxicity of compounds:

##### isopropyl alcohol :

LC50:	> 100 mg/l/48h (Leuciscus idus melanotus)
EC50:	> 100 mg/l/48h (Daphnia magna)
EC50:	> 100 mg/l/72h (Scenedesmus subspicatus)



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## hexanedioic acid:

LC50: ≥ 1000 mg/l/96h (Brachydanio rerio)

LC50: 46 mg/l/48h (Daphnia magna)

EC50: 59 mg/l/72h (Pseudokirchneriella subcapitata)

### **12.2 Persistence and degradability**

no data available

### **12.3 Bioaccumulative potential**

no data available

### **12.4 Mobility in soil**

no data available

### **12.5 Results of PBT and vPvB assessment**

no data available

### **12.6 Other adverse effects**

The product does not affect global warming and ozone depletion.

## **Section 13. Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

Disposed of in accordance with local regulations. Do not dispose of waste or sewage system. Remains stored in their original containers. It is possible, the recycling is preferred. The recommended method of disposal of waste is thermal transformation.

#### **Contaminated packaging**

Recommendations for packaging waste: recovery / recycling / utilization of packaging waste carried out in accordance with applicable regulations. Only the completely emptied packaging can be recycled.

## **Section 14. Transport information**

### **14.1 UN 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 Packaging group**

II





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## 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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## Section 15. Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization 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.

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 1-10 ATP)

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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.

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 (Text with EEA relevance).

Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

Council Directive 91/689/EEC of 12 December 1991 on hazardous waste.

### 15.2 Chemical Safety Assessment

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





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## 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

### Full text of H-Statements referred to under sections 3

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
TWA	Time Weighted Average
TLV	Threshold Limit Value
PEL	Permissible Exposure Limit
Eye Irrit. 2	Eye irritation category 2
Flam. Liq. 2	Flammable liquid category 2
STOT SE 3	Specific Target Organ Toxicity – single exposure, category 3

Date of issue: 01.06.2015

Version: 2.0/EN

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