Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) and Regulation (EU) No. 830/2015

Commercial name: Impu-Fix ribbon conductor quick adhesive

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1. Material/preparation and company designation

1.1 Product identifier

Commercial name: Impu-Fix ribbon conductor bonding agent
Item number: 2341018
Type: 509

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

Recommended use
Adhesive

Uses advised against
No other relevant information available.

1.3 Details of supplier of the safety data sheet

Manufacturer/supplier
OBO Bettermann Holding GmbH & Co. KG
P.O. Box 1120
58694 Menden
GERMANY

Division providing information
Customer Service
Tel.: +49 23 73 89 - 17 00
Fax: +49 23 73 89 - 12 38
export@obo.de

1.4 Emergency telephone number

REACH Registration of Chemicals GmbH
Tel.: +49 (0)700 24112112 (OBO)
Tel.: +1 872 5888271 (OBO)

2. Possible risks

2.1 Classification of the substance or mixture

EC ordinance 1272/2008 (CLP)

Flam. Liq. 2	H225 Liquid and vapour highly flammable.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
STOT SE 3	H336 Can cause drowsiness and dizziness.
Aquatic Chronic 2	H411 Toxic to aquatic life with long-lasting effects.

Additional data:
The classification is based on the calculation method of the CLP ordinance.

OPTO 180290

2.2 Label elements

Labelling according to ordinance (EU) No. 1272/2008

The product is classified and labelled according to the CLP ordinance.

Hazard pictograms

GHS02 GHS09 GHS07

Signal word

Danger

Hazardous components for labelling:

Hydrocarbons C6-C7

2-Butanone

Ethyl acetate

Risk information

H225	Liquid and vapour highly flammable.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	Can cause drowsiness and dizziness.
H411	Toxic to aquatic life with long-lasting effects.

Safety information

P210	Keep away from heat, hot surfaces, sparks, naked flames and other sources of ignition. No smoking.
P243	Take measures against electrostatic discharging.
P271	Use only outdoors or in well-ventilated rooms.
P273	Avoid release to the environment.
P261	Avoid vapour inhalation.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove any contact lenses where possible. Continue rinsing.
P337+P313	If eye irritation persists: Seek medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P403	Store in a well-ventilated location.

Additional data:

EUH208	Contains colophony. Can cause allergic reactions.

2.3 Other hazards

With large-scale working of the product in the wider environment and in underground floor spaces, eliminate ignition sources such as welding devices, door bells, hot plates, refrigerators, night storage heaters, etc.! Position warning signs to warn of the potentially explosive atmosphere!

3. Composition/details of component parts

3.1 Substances

-

3.2 Chemical characteristics: Mixture

Description

Mixture of various substances.

Hazardous contents		
CAS: 64742-49-0 921-024-6 Reg. no.: 2119475514-35-xxxx	Hydrocarbons C6-C7 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	20–30%
CAS: 78-93-3 EINECS: 201-159-0 Reg. no.: 01-2119457290-43-xxxx	2-Butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	15–25%
CAS: 141-78-6 EINECS: 205-500-4 Reg. no.: 01-2119475103-46-xxxx	Ethyl acetate Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10–20%
CAS: 8050-09-7 EINECS: 232-475-7	Colophony Skin Sens. 1, H317	<1.0%
CAS: 1314-13-2 EINECS: 215-222-5 Reg. no.: 01-2119463881-32-xxxx	Zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.5%
CAS: 128-37-0 EINECS: 204-881-4 Reg. no.: 01-2119555270-46-xxxx	2.6-Di-tert-butyl-p-kresol Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302	<0.5%

Additional information:

CAS No. 64742-49-0 (Naphtha [petroleum], hydrotreated light) => mixture of isoalkanes, n-alkanes, cyclenes (benzene content [CAS No.: 71-43-2] <0.1%, cyclohexane [CAS No.: 110-82-7] <25%, n-Hexane [110-54-3] <5%)

The actual text of the listed hazard information can be found in Section 16.

4. First aid measures

4.1 Description of first-aid measures

After inhalation

Fresh air, seek medical attention should symptoms persist. If unconscious, position and transport the patient in the recovery position.

After skin contact

Dab affected skin areas with cotton wool or cellulose material and then wash thoroughly with a mild cleanser and water.

After eye contact

With the eyelids open, rinse eyes under running water for several minutes and obtain medical advice.

After ingestion

Prevent vomiting and obtain medical assistance immediately.

4.2 Most important acute and delayed symptoms and effects

No other relevant information available.

4.3 Information for immediate medical aid or special treatment

No other relevant information available.

5. Fire protection measures

5.1 Extinguishing media

Suitable extinguishing media

Spray water jet

Alcohol-resistant foam
Extinguishing powder

Carbon dioxide

Unsuitable extinguishing media
Full jet of water.

5.2 Special hazards arising from the substance or mixture
When heated, or in cases of fire, possible formation of toxic gases.

5.3 Advice for firefighters
Special protective equipment: Wear breathing protection which works independently of the ambient air.

6. Measures in the case of unintentional release

6.1 Personal precautions, protective equipment and emergency procedures
Ensure sufficient ventilation.
Keep away from sources of ignition.
Use breathing protection if there is a risk of vapours/dust/aerosols.

6.2 Environmental precautions
Do not let the product enter the sewerage system/surface water/groundwater.

6.3 Methods and materials for containment and cleaning up
Collect mechanically.

6.4 Reference to other sections
For information on safe handling, see Chapter 7.
For information on personal protective equipment, see Chapter 8.
For disposal information, see Chapter 13

7. Handling and storage

7.1 Protective measures for safe handling
Ensure good ventilation/extraction at the workstation.

Information on fire and explosion protection:
Keep away from sources of ignition – do not smoke.
Take measures against electrostatic charging.
Vapours can form a potentially explosive mixture with air.

7.2 Conditions for safe storage, including any incompatibilities

Storage:
- Requirements for storage rooms and containers: Reliably prevent penetration into the ground.
- Joint storage information: Store separately from foods.

Additional information on storage conditions:
Protect against frost.
Keep the containers closed tightly.
Protect against heat and direct sunlight.
Keep container in a well-ventilated place.
Store in a dry place.

Storage class (as per VCI concept): 3

7.3 Specific end applications
No other relevant information available.

8. Exposition limitation/personal protective equipment

Additional information on the design of technical systems:

No further data, see Chapter 7.

8.1 Parameters to be monitored

Components with workplace-related limit values to be monitored:

CAS no.	Designation	Type	Limit value
64742-49-0	Hydrocarbons C6-C7	MAK (Germany)	1000 mg/m³, 200 ml/m³
78-93-3 2	2-Butanone	AGW (Germany)	Long-term exposure value: 600 mg/m³, 200 ml/m³ 1(I);DFG, H, Y
		IOELV (European Union)	Short-term exposure value: 900 mg/m³, 300 ml/m³ Long-term exposure value: 600 mg/m³, 200 ml/m³
141-78-6	Ethyl acetate	AGW (Germany)	1,500 mg/m³, 400 ml/m³ 2(I);DFG, Y
8050-09-7	Colophony	MAK (Germany)	cf. Chapter IV

DNEL values:

CAS no.	Designation	Exposure	Type	Limit value
64742-49-0	Hydrocarbons C6-C7	Inhalative	worker (long-term exposure/systemic)	3.25 mg/m³

Components with biological limit values:

CAS no.	Designation		
78-93-3	2-Butanone	BGW (Germany)	5 mg/l Specimen: Urine Sample collection period: End of exposure or end of shift Parameters: 2-Butanone

8.2 Limitation and monitoring of exposure

Personal protective equipment

General protection and hygiene measures:

Observe the normal precautionary measures for handling chemicals.

Keep away from food, drinks and feed.

Wash your hands before breaks and after completing work.

Take off soiled, saturated clothing immediately.

Respiratory protection

Not required with good room ventilation or adequate extraction.

For short-term or low exposure with breathing filter device; in cases of intensive or longer exposure, use a breathing protection device which works independently of the ambient air.

Short-term filter device: A2 (DIN EN 14387 / DIN EN 141)

Hand protection

Safety gloves, consisting of the following material:

Butyl rubber (0.7 mm)

The stated material refers only to the chemical resistance to the product.

Another important factor when selecting the correct protective gloves is their resistance to mechanical stresses. However, since these can vary completely from company to company, we advise the user to contact a protective glove manufacturer in order to explore the operational requirements on an individual basis. It is also necessary to ensure an adequate penetration time (>240 min. / EN374) of the glove material, which is suitable for the level and duration of exposure to the product.

Eye protection

Protective glasses.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form: Viscous

Colour: Amber-coloured

Odour: Solvent-like

Boiling point/boiling range: 77 °C

Ignition point: –19 °C

Ignition temperature: 200 °C

Explosion limit, lower: 0.6% vol.

Explosion limit, upper: 11.5% vol.

Explosion group according to 94/9/EC (ATEX directive): IIA

Vapour pressure at 20 °C: 160 hPa

Density at 20 °C: 0.86 g/cm³

Solubility/miscibility in water: Slightly soluble

Viscosity, dynamic at 20 °C: 3,200 mPa (Brookfield)

Solvent content:

- Organic solvents: 75.1%
- VOC (EU): 646.3 g/l
- VOC (EU): 75.13%
- VOC (CH): 75.13%

9.2 Other data

No other relevant information available.

10. Stability and reactivity

10.1 Reactivity

No other relevant information available.

10.2 Chemical stability

Thermal decomposition/conditions to be avoided:

No decomposition if used correctly.

10.3 Possibility of hazardous reactions:

Reactions with oxidizing agents.

10.4 Conditions to avoid

No other relevant information available.

10.5 Incompatible materials

No other relevant information available.

10.6 Hazardous decomposition products

Formation of the following substance(s) in case of fire: Hydrogen chloride (HCl)

11. Toxicological data

11.1 Data on toxicological effects

Acute toxicity

On the basis of the available data, the classification criteria are not fulfilled.

Primary irritant effect

- Corrosive/irritant to skin: Causes skin irritation.
- Serious eye damage/irritation: Causes serious eye irritation.

Sensitisation of the airways/skin

On the basis of the available data, the classification criteria are not fulfilled.

CMS impacts (carcinogenic, DNA-modifying and reproductive system impact)

- Germ cell mutagenicity: On the basis of the available data, the classification criteria are not fulfilled.
- Carcinogenicity: On the basis of the available data, the classification criteria are not fulfilled.
- Reproductive toxicity: On the basis of the available data, the classification criteria are not fulfilled.

Specific target organ toxicity with single exposure

Can cause drowsiness and dizziness.

Specific target organ toxicity with repeated exposure

On the basis of the available data, the classification criteria are not fulfilled.

Aspiration risk

On the basis of the available data, the classification criteria are not fulfilled.

12. Environmental data

12.1 Toxicity

Aquatic toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

No other relevant information available.

12.3 Bioaccumulation potential

No other relevant information available.

12.4 Mobility in soil

No other relevant information available.

Additional ecological information:

General information

Water hazard class 2 (self-categorisation): Slightly hazardous to water

Do not let the product enter the groundwater, the waterways or the sewerage system.

12.5 Other adverse effects

No other relevant information available.

13. Disposal information

13.1 Waste treatment method

Recommendation: Disposal according to official regulations.

EAK waste code / EWC code(s):

Do not discard via the ground, waterways or sewerage system, but instead as industrial waste. These EU EWC code numbers are recommendations for waste that accumulates from the use of adhesives and sealants. If organic solvents or other hazardous substances under item 3 of this safety data sheet are listed, the resulting waste is to be classified as hazardous (*).

Waste accumulating during use:

080409 Adhesive and sealant mass waste containing organic solvents or other hazardous substances

080410 Adhesives and sealant mass waste other than those mentioned in 080409

Waste accumulating during cleaning:

08 04 11 Adhesive and sealant mass containing slurries containing organic solvents or other hazardous substances

08 04 12 Adhesive and sealant mass containing slurries other than those mentioned in 080411

Contaminated packaging waste:

15 01 10 Packaging containing residues of hazardous substances or which is soiled by hazardous substances.

Clean packaging waste:

15 01 01 Paper and card packaging

15 01 02 Plastic packaging

15 01 04 Metal packaging

Uncleaned packaging:

Recommendation: Disposal according to official regulations.

14. Transport information

14.1 UN number:

ADR, RID, ADN, IMDG, IATA UN1133

14.2 Current UN shipment designation

ADR/RID/ADN	1133 ADHESIVES, HARMFUL TO THE ENVIRONMENT
IMDG	ADHESIVES (hydrocarbons, C6-C7), MARINE POLLUTANT
IATA	ADHESIVES

14.3 Transport risk classes

ADR, RID, ADN, IMDG

Class: 3 Flammable liquid substances

Hazard label: 3

IATA

Class: 3 Flammable liquid substances

Label: 3

14.4 Packaging group

ADR/RID/ADN	III
IMDG, IATA	II

14.5 Environmental risks

Marine pollutant: Yes Symbol (fish and tree)

Special labelling (ADR/RID/ADN): Symbol (fish and tree)

14.6 Special precautionary measures for the user

Caution: Flammable liquid substances

Kemler number: 33

EMS number: F-E,S-D

Stowage Category B

14.7 Mass good transportation according to Appendix II of the MARPOL agreement and according to the IBC code

N/A.

Transport/additional information:

ADR/RID/ADN

Limited quantity (LQ) 5L

Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1,000 ml

Transport category 3

Tunnel limitation code D/E

IMDG

Limited quantities (LQ) 5L

Excepted quantities (EQ) Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

Comments: (Packing group III, if contents of packaging ≤30 l, according to 2.3.2.2 IMDG)

IATA

Comments: (Packing group III, if content of packaging £ 30 l, according to 3.3.3.1.1 IATA)

UM „Model Regulation“: UN 1133 ADHESIVES , 3 , III , HARMFUL TO THE ENVIRONMENT

15. Regulatory information

15.1 Specifications regarding safety, health and environmental protection/specific legal specifications for the substance or the mixture

Directive 2012/18/EU

Quantity threshold (in tonnes) for use in lower-tier establishments: 200 t

Quantity threshold (in tonnes) for use in higher-tier establishments: 500 t

National specifications:

Hazardous Incident Ordinance: The threshold quantities in accordance with the Hazardous Incident Ordinance must be observed.

Technical Instructions on Air:

- Class ratio in %

The following under „NK“ are all volatile organic substances quantitatively cumulated which,

in accordance with Chapter 5.2.5 of Air Quality Control (TA-Luft) (date 24.07.02) conform to neither Class I nor Class II:

I 1.5

NK 73.6

Water hazard class

WHC 2 (Self-categorisation): Hazardous to water.

Other specifications, restrictions and banning ordinances

Industrial Safety Ordinance (BetrSichV) must be observed!

APP:

„Principles of Prevention“ (DGUV-V1)

„Occupational Medical Care“ (DGUV-V6)

BG information sheet:

M 050 „Activities with hazardous substances“

M 017 „Solvents“

M 004 „Irritant substances/corrosive substances“

Technical rules for hazardous substances:

TRGS 400 Hazard assessment for activities with hazardous substances

TRGS 500 Protective measures

TRGS 510 Storage of hazardous substances in mobile containers

TRGS 555 Operating instructions and information for employees

TRGS 600 Substitution

TRGS 900 Workplace limit values

TRGS 720 Hazardous, potentially explosive atmospheres – General (=TRBS 2152)

TRGS 721 Hazardous, potentially explosive atmospheres – Evaluation of explosion risk (=TRBS 2152, Part 1)

TRGS 722 Avoidance or limitation of hazardous, potentially explosive atmospheres (=TRBS 2152, Part 2)

16. Other data

This data is provided according to our latest knowledge, but does not constitute any assurance of product characteristics or justify any legal relationship.

Only intended for commercial use.

16.1 Key for the risk and safety phrases relating to the substances stated in Chapter 3 (for labelling of these products see Chapter 2)

H225 Liquid and vapour highly flammable.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters the airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 Can cause drowsiness and dizziness.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long-lasting effects.

H411 Toxic to aquatic life with long-lasting effects.

16.2 Data sheet of issuing area:

Department: Technical documentation

16.3 Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

LC50: Lethal concentration, 50%

PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin irritant/corrosive effect – Category 2
Eye Irrit. 2: Serious eye damage/irritation – Category 2
Skin Sens. 1: Sensitisation of the skin – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Asp. Tox. 1: Aspiration risk – Category 1
Aquatic Acute 1: Hazardous to water – acute hazard to water – Category 1
Aquatic Chronic 1: Hazardous to water – long-term hazard to water – Category 1
Aquatic Chronic 2: Hazardous to water – long-term hazard to water – Category 2