

1. Identification of the substance / preparation and of the company

Product name : 77001-00023 Solvent
Use of the substance/preparation: Solvent for industrial ink jet printers (CIJ-printers)
Supplier : Paul Leibinger GmbH & Co. KG
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78532 Tuttlingen
Germany
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(for Transport & Environment)

2. Hazards Identification

2.1 Classification of the substance or mixture:

This product is dangerous within the meaning of Regulation (EC) No 1272/2008.

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

Hazard category:

Flammable liquids, category 2

Irritation to eyes, category 2

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



Signal word: Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements:

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

P233 Keep container tightly closed

P241 Use explosion-proof electrical, lighting, ventilating equipment

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

P264 Wash hands thoroughly after handling

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

2.3 Other hazards

Not Information available

3. Composition / information on ingredients

3.1 Substances

This product is a mixture within the meaning of GHS regulation (EC) no. 1272/2008

3.2 Mixtures

Description of the mixture:

Mixture(s) based on organic solvents, resins, pigments and binding agents

Dangerous components pursuant to REACH-Directive 67/548/EEC:

Chemical name	CAS No	EC No	[% weight]	Regulation (EC) No. 1272/2008 [CLP]
Ethanol	64-17-5	200-578-6	>50	Flam. Liq. 2, H225
Polyvinylpyrrolidone	9003-39-8	-	<20	Not classified
Paraffin, Wax	8002-74-2	-	<2	Not classified

Full text of R/H phrases see heading 16.

4. First aid measures

4.1 Description of first aid measures

General instructions:

In case of symptoms or when in doubt consult a physician. Expose affected person to fresh air. If the person is unconscious do not perform mouth to mouth resuscitation, place person in lateral position and call emergency services / paramedics. Clothing soiled with the product must be removed immediately.

After inhalation:

Provide fresh air or oxygen. Place affected person in a stable lateral position and keep warm. In case of irregular breathing / respiratory arrest reanimate. Position and transport unconscious person in a stable lateral position. Call emergency services / paramedics.

After skin contact:

Remove soiled clothing immediately. Immediately wash with soap and water and rinse thoroughly. Do not use solvents or thinners. Consult physician if irritation persists.

After eye contact:

Immediately remove contact lenses if worn. Rinse open eye immediately under running water for several minutes and, if necessary, consult ophthalmologist.

After swallowing:

Immediately consult physician and show packaging or label. Do not induce vomiting, keep affected person calm.

4.2 Most important acute and delayed symptoms and effects

In case of symptoms or when in doubt consult a physician.

4.3 Notes on medical first aid or special treatment

No further relevant information available.

5. Fire-fighting measures

5.1 Extinguishing medium

Suitable extinguishing medium

Alcohol-resistant foam, carbon dioxide, powder or water spray.

Unsuitable (unsafe) extinguishing mediums:

Do not apply full water jet

5.2 Special hazards emanating from the substance or mixture

A fire will produce thick black smoke. Inhaling hazardous disintegration products can cause severe health problems. Do not inhale explosion and fire gases and vapours. The formation of explosive vapour / air mixtures is possible. Vapours are heavier than air and will spread along the floor, ignition over great distances possible.

5.3 Notes on fire-fighting

If necessary, wear complete body protective suit with an independent breathing apparatus. Do not feed extinguishing water into the main drains, ground or surface water bodies. Closed containers near the fire must be cooled with water.

5.4 Further information

Fire residues and contaminated extinguishing water must be disposed of according to authority instructions and directives.

6. Accidental release measures

6.1 Personal precautions, protective equipment and measures to be taken in emergencies

Remove any ignition or spark sources. Do not smoke. Prevent sparks, Ventilate the affected area. Keep unprotected persons away. If required, wear protective equipment and clothing. Prevent contact with skin, eyes and clothing. Do not inhale vapours. Take precautions against electrostatic charging.

6.2 Environmental protection measures

Avoid intrusion in drainage, trenches, basements and surface water bodies, otherwise notify responsible authorities immediately.

6.3 Methods and materials for retention and cleaning

Collect spillages with non-flammable material (sand, diatomite, etc.), restrict and dispose of according to local directives and authority regulations. Ensure sufficient ventilation. Dispose of contaminated materials according to no. 13.

6.4 Reference to other sections

There is possible a hazard of explosion.

7. Handling and storage

7.1 Measures ensuring safe handling

The formation of flammable and explosive solvent vapours in the open air and an excess of the MAK limits must be avoided. Use the product only in locations without any open light, fire and other ignition sources in the vicinity. The material is electrostatically chargeable, when refilling use only earthed lines. The wearing of antistatic clothing and foot wear is recommended. Use anti-spark tools. Take care when opening or closing containers and vessels. Avoid contact with eyes and skin. Do not inhale spray or vapour. Do not eat, drink or smoke while working. Wear protective clothing as required. Observe legal health and safety regulations and directives

Notes on ignition and explosion protection:

Solvent vapours are heavier than air and will spread along the floor. Vapours may form an explosive mixture in the open air. Keep away from ignition sources – do not smoke. Take measures to avoid electrostatic charging. Use explosion-safe devices and fittings, and use anti-spark tools.

7.2 Safe storage conditions under consideration of incompatibilities – suitability of storage space and vessels

According to industrial standards all electrical devices must be explosion-safe. Floors must be electrically conductive. Do not empty vessels with pressure – vessels are not pressurized. Smoking prohibited. Keep storage facilities cool and dry, ensure good ventilation, keep ignition sources away. Protect goods from direct sun radiation. Storage only in compliance with authority and legal regulations and directives.

Storage notes

Keep away from strong acidic and alkaline materials, and from oxidation agents.

Further information on storage conditions:

Store in closed containers cool and dry, and in an upright position, at a storage temperature between 10°C and 25°C. Store in compliance with local regulations / laws.

Storage rating: 3 – flammable liquids

Classification according to the Operational health and safety directive : Highly inflammable

7.3 Specific end user applications

Solvent for industrial InkJet-printers.

8. Exposure controls / personal protection**8.1 Control parameters****8.1 Occupational exposure limits:**

CAS-No.	Name of substance	Kind of TWA	Value	Country
64-17-5	Ethanol	WEL	1920 mg/m ³	GB
9003-39-8	Polyvinylpyrrolidone	WEL	4 mg/m ³	GB
8002-74-2	Paraffin, Wax	WEL	2 mg/m ³	GB

8.2 Restriction and monitoring of exposure – Personal protective apparel:**General health and safety and hygiene instructions:**

Ensure good ventilation in rooms. Before breaks and at the end of work shifts wash hands. Avoid contact with skin and eyes. Keep away from food, drink and animal feed. Immediately remove soiled clothing.

Respiratory protection:

In case the solvent concentration exceeds the air limits an approved respiratory protective device must be worn, with a filter rated at least at A1-P2. Respiratory protection is also required in case of insufficient ventilation or extraction. Short-term or low loads require only a face filter mask, intense or longer exposure require an independent respiratory protection device.

Hand protection:

Solvent-resistant gloves

Glove material

Butyl rubber

The selection of the suitable gloves depends not only on the right material but also on other quality characteristics and may vary from one manufacturer to the other.

Penetration time of the glove material

Observe the glove manufacturer details regarding the permeability and penetration times and the special conditions at the workplace (mechanical strain, contact times). Replace protective gloves at the first signs of wear and tear. Penetration time: > 8 h Recommended material thickness: >0.7 mm

Eye protection:

Tightly sealing goggles / face mask

Body protection:

Wear antistatic clothing made of natural fibres, chemical-resistant safety gloves. After skin contact wash skin surface thoroughly.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour:	black
Odour:	characteristic
Boiling range:	≥ 77 °C
pH:	n.a.
Flash point:	13 °C
Ignition temperature:	425°C
Flammability(solid, gas)	Highly flammable liquid and vapour

9.2 Other information:

No data available

10. Stability and reactivity

10.1 Reactivity

No information available on the product

10.2 Chemical stability

Stable when used according to storage and handling instructions

10.3 Possible hazardous reactions

Keep away from strongly acidic and alkaline materials, as well as from oxidation media

10.4 Conditions to be avoided

High temperatures – at high temperatures disintegration products can be released.

10.5 Incompatible materials:

Strong acids, strong bases, strong oxidation media

10.6 Hazardous disintegration products:

Hazardous disintegration products may be released at high temperatures; in case of fire carbon monoxide and dioxide.

11. Toxicological information

11.1 Information on toxicological effects

No information is available for the mixture. Inhaling solvent vapours (especially if above the AGW limits) may lead to health damages such as irritation of mucous membranes and of the respiratory organs, kidney and liver damage as well as detrimental effects on the central nervous system. Symptoms: headache, dizziness, fatigue, muscular weakness, numbing, and in exceptional cases loss of consciousness. Extended and / or repeated exposure to the product may reduce the re-epithelization of the skin and cause dryness of the skin. The product may penetrate the body through the skin. Solvent and paint splashes may cause eye irritation and irreversible damages.

Ethanol (CAS Nr. 64-17-5)

LD50 oral rat: 10740 mg/kg bodyweight (Rat; Experimental value, Rat; Experimental value)

Polyvinylpyrrolidone (CAS Nr. 9003-39-8)

LD50 oral rat: 100000 mg/kg (Rat)

Paraffin, Wax (CAS Nr. 8002-74-2)

LD50 oral rat: > 5000 mg/kg (Rat)

Serious eye damage/irritation Causes serious eye irritation

12. Ecological information

12.1 Toxicity

Ethanol (CAS Nr. 64-17-5)

LC50 Fishes 1 14200 mg/l (96 h; Pimephales promelas; Nominal concentration)

Polyvinylpyrrolidone (CAS Nr. 9003-39-8)

LC50 Fishes 1 > 10000 mg/l (96 h; Leuciscus idus)

Paraffin, Wax (CAS Nr. 8002-74-2)

LC50 Fishes 1 > 1000 mg/l (96 h; Pisces)

12.2 Persistence and degradability

Not established

Ethanol (64-17-5) Readily biodegradable in water. Biodegradable in soil.
No (test) data available on mobility of the substance.

Polyvinylpyrrolidone (9003-39-8) Not readily biodegradable in water.

Paraffin, Wax (8002-74-2) (Inherently) biodegradable, Biodegradable in Soil

12.3 Bio-accumulation potential

Not established

Ethanol (64-17-5) Low bioaccumulation potential (Log Kow < 4)

Polyvinylpyrrolidone (9003-39-8) no data available

Paraffin, Wax (8002-74-2) Log Kow > 6 (Calculated)

12.4 Mobility in the ground

Not established

Ethanol (64-17-5) surface tension 0,022 N/m (20°C)

Paraffin, Wax (8002-74-2) surface tension 0,031 N/m (54°C)

12.5 Results of the PBT and vPvB assessment

No additional information available.

12.6 Other damaging effects

Avoid release to the environment

12.7 Further information

Water hazard class 1 – Self-assessment

13. Disposal considerations

13.1 Waste treatment procedure

Recommendation:

May not be disposed of together with household waste. Do not penetrate into waste water drainage. Product must be disposed of according to authority regulations in a special waste treatment facility.

Waste code number:

08 01 11 Paint and lacquer waste containing organic or other hazardous substances

Uncleaned packaging:

Recommendation:

Completely emptied and uncontaminated containers can be recycled. Containers containing product residues are to be disposed of according to authority regulation for special waste treatment.

14. Transport information

	<u>ADR/RID</u>	<u>IMDG</u>	<u>IATA-DGR</u>
14.1. UN number	1210	1210	1210
14.2. UN proper shipping name	PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL	PRINTING INK RELATED MATERIAL
14.3. Transport hazard class(es)	3	3	3
14.4. Packing group	II	II	II
14.5. Environmental hazards	n.a.	No	No
Marine pollutant	No	No	No

14.6. Special precautions for user

Warning: Flammable liquids.

Tunnel restriction code D/E

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

No information available.

Transport/further information

Regulations concerning free quantities are to be observed.

15. Regulatory information

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

Notes on employment restrictions:

Observe employment restrictions according to maternal protection guidelines and / or juvenile labour protection act

Classification according to operational safety directive:

Highly flammable liquid

Technical instruction of the cleanliness of the air:

In total, the following values in the exhaust gases must not be exceeded:

in mass stream 0.50 kg / h – in mass concentration 50 mg / m²

VOC content: 100 %

Water hazard class:

WGK 1(self-assessment): low water hazards

15.2 Substance safety assessment

A substance safety assessment has not been carried out.

16. Other informations

Abbreviations and acronyms:

n.a.: not applicable - n.d.: not determined

According to Regulation (EC) No 1272/2008:

Full text of H phrases in heading 3:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. These products should be stored, handled, and used in conformity with any legal regulation. The information provided above is for general guidance only without responsibility, liability, and warranty on our part and is subject to change without notice.