

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

Product Name : 77001-00871 Solvent  
Use of the substance/preparation: Solvent for industrial ink jet printers (CIJ-printers)  
Supplier : Paul Leibinger Inc  
2702 Buell Drive, Suite B  
East Troy, WI 53120, USA  
Phone: +01-262-642-4030  
[www.leibinger-group.com](http://www.leibinger-group.com)  
Emergency phone (24h service) : USA: ChemTel Inc: +1-800-255-3924  
Outside USA: ChemTel Inc: +1-813-248-0585  
Brazil: ChemTel Inc: +1-800-591-5042  
Mexico: ChemTel Inc: +1-800-099-0731

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

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

<u>Hazard classes and Hazard categories</u>	<u>Hazard Statements</u>
Flam. Liq. 2	H225
Eye Irrit. 2	H319
STOT SE 3	H336

### 2.2. Label elements

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



**Signal word:** Danger

#### Hazard statements for physical hazards

H225 Highly flammable liquid and vapour.

#### Hazard statements for health hazards

H336 May cause drowsiness or dizziness

H319 Causes serious eye irritation.

## Precautionary Statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.
- P240 Ground/bond container and receiving equipment.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- P370+P378 In case of fire: Use appropriate method to extinguish.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P312 Call a POISON CENTER/doctor/physician if you feel unwell.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P264 Wash 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.
- P337+P313 If eye irritation persists: Get medical advice/attention

## Hazardous ingredients:

butanone

## 2.3. Other hazards

### Adverse physicochemical effects

In the case of insufficient ventilation and/or through the formation of a explosive/highly flammable mixture is possible.

### Adverse human health effects and symptoms

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

### Information pertaining to special dangers for human and environment

In use, may form flammable/explosive vapour-air mixture.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1. Substances

not applicable

### 3.2. Mixtures

**Hazardous ingredients** (Classification according to 67/548/EEC)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
78-93-3	201-159-0	2-butanone	95-99	Flam. Liq. 2, H225 Eye Irrit. 2, H319/ STOT SE 3, H336
67-64-1	200-662-2	2-propanone	1-5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General information

Remove contaminated soaked clothing immediately.  
In the event of persistent symptoms receive medical treatment.  
Take affected person into fresh air.  
Take away from danger area and lay down affected person.

**FIRST AID - EYE CONTACT:** Immediately flush eyes with water. Flush eyes with water for a minimum of 15 minutes, occasionally lifting and lowering upper lids. Get medical attention promptly. Remove contact lenses if worn.

**FIRST AID - SKIN CONTACT:** Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately and clean shoes before reuse.

**FIRST AID - INHALATION:** Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. To prevent aspiration, keep head below knees.

**FIRST AID - INGESTION:** DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician. Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone

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

#### Physician's information / possible symptoms

In case of inhalation of plenty of solvent-containing fumes the following symptoms may occur:  
Unconsciousness  
Depression of central nervous system  
Confusion

#### Physician's information / possible dangers

In case of severe poisoning depressions of central nervous system, hypotension, bradycardia and hypothermia may occur.

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

No information available.

## 5. FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable extinguishing media

Alcohol-resistant foam  
Dry powder  
Carbon dioxide  
Water spray jet

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

Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors/dust may form explosive mixture with air. Vapors can travel to a source of ignition and flash back. Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. Also, do not reuse container without commercial cleaning or reconditioning. Closed container may explode under extreme heat. Highly flammable liquid and vapor.

**SPECIAL FIREFIGHTING PROCEDURES:** As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Evacuate all unnecessary personnel. Shut down motors, pumps, electrical service and eliminate all sources of ignition. Do not use water jet (frothing possible). Water spray to cool containers or protect personnel. Use with caution. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Avoid use of solid water streams. Use water with caution. Material will float and may ignite on surface of water. Water may be ineffective in fighting the fire. Small fires: carbon dioxide or dry chemical. Large fire: alcohol-type aqueous film-forming foam or water spray.

## **6. ACCIDENTAL RELEASE MEASURES**

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

#### **For non-emergency personnel**

Ensure adequate ventilation.

Use personal protective clothing.

Keep away sources of ignition.

### **6.2. Environmental precautions**

Do not discharge into the drains or bodies of water..

Do not seep away runed out product into ground or body of water.

Do not discharge into the subsoil/soil.

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

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

#### **Additional Information**

Information for disposal see chapter 13.

### **6.4. Reference to other sections**

No information available.

## **7. HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Take measures against electrostatically charging.

Provide good room ventilation even at ground level (vapours are heavier than air).

Take the usual precautions when handling with chemicals.

#### **General protective measures**

Do not inhale vapours.

Avoid contact with the skin.

#### **Hygiene measures**

Do not eat or drink when working.

Remove soaked clothing immediately.

After work wash thoroughly.

#### **Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking

The product is easy combustible.

Take precautionary measures against static discharges.

Formation of explosive gas mixtures in air.

### **7.2. Conditions for safe storage, including any incompatibilities**

#### **Requirements for storage rooms and vessels**

Keep in closed original container.

Ventilate store-rooms thoroughly.

### Advice on storage compatibility

Do not store together with food.

Do not store together with oxidizing agents.

Store at cool and aired place and at distance to acids and alkalies.

### Further information on storage conditions

Keep container tightly closed and store at cool and aired place.

Protect from light.

Do not keep long-term to heat.

Storage temperature between 10°C to 30°C (=50°F to 86°F).

Keep in a cool place, heat causes increase in pressure and risk of bursting.

### 7.3. Specific end use(s)

Ink for industrial InkJet printers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	ACGIH-TLV-TWA	ACGIH-TLV-STEL	OSHA-PEL-TWA	OSHA-PEL-CEILING
78-93-3	2-butanone	200ppm	300ppm	200ppm	N.D.
67-64-1	2-propanol	500ppm	750ppm	1000ppm	N.D.

### 8.2. Exposure controls



**RESPIRATORY PROTECTION:** NIOSH/MSHA approved respirators may be necessary if airborne concentrations are expected to exceed exposure limits.



**SKIN PROTECTION:** Wear impervious gloves to prevent contact with the skin. Wear protective gear as needed - apron, suit, boots.



**EYE PROTECTION:** Wear safety glasses with side shields (or goggles) and a face shield.



**OTHER PROTECTIVE EQUIPMENT:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower



**HYGIENIC PRACTICES:** Do not eat, drink, or smoke in areas where this material is used. Avoid breathing vapors. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling. Wash hands before eating

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### Appearance

Liquid

#### Colour

colorless, clear

#### Odour

like ketone

#### Odour threshold

No information available.

## Important health, safety and environmental information

	Value	Temperature at
<b>pH value</b>	No information available.	
<b>starts to boil</b>	133 – 178°F ( 56 - 81°C)	
<b>Melting point / Freezing point</b>	No information available.	
<b>Flash point</b>	10°F (-12°C)	
<b>Vapourisation rate</b>	No information available	
<b>Flammable (solid)</b>	No information available.	
<b>Flammability (gas)</b>	No information available.	
<b>Ignition temperature</b>	> 400 °C	
<b>Self ignition temperature</b>	No information available.	
<b>Lower explosion limit</b>	1,8 Vol-%	
<b>Upper explosion limit</b>	12,8 Vol-%	
<b>Vapour pressure</b>	< 110 kPa	122°F (50°C)
<b>Relative density</b>	~ 0,809 g/cm <sup>3</sup>	68°F (20 °C)
<b>Vapour density</b>	No information available.	
<b>Solubility in water</b>	partial	
<b>Solubility/other</b>	No information available.	
<b>Partition coefficient noctanol/ water (log PO/W)</b>	No information available.	
<b>Decomposition temperature</b>	No information available.	
<b>Viscosity dynamic</b>	3 - 6 mPa*s	68°F (20 °C)
<b>Solvent concentration</b>	100 %	

### Oxidising properties

No information available.

### Explosive properties

No information available.

## 9.2. Other information

Vapours are heavier than air. Flammable liquid

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

No information available.

### 10.3. Possibility of hazardous reactions

No information available.

### 10.4. Conditions to avoid

Reactions with acids and strong oxidising agents.

Reactions with alkalis.

Avoid impact, friction, heat, sparks, flame and source of ignition.

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

### Thermal decomposition

Remark: No decomposition if used as directed.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

The acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name</u>	<u>Oral LD50, mg/kg</u>	<u>Dermal LD50, mg/kg</u>	<u>Vapor LC50, mg/L</u>
78-93-3	2-butanone	>2193	>5000	>20
67-64-1	2-propanone	5800	>2000	50.1

**EFFECTS OF OVEREXPOSURE - INHALATION:** Breathing in the material may irritate the mucous membranes of the nose, throat bronchi and lungs. Can cause nausea, dizziness, headache, and stupor. May cause central nervous system depression. Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness.

**EFFECTS OF OVEREXPOSURE - SKIN CONTACT:** Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

**EFFECTS OF OVEREXPOSURE - EYE CONTACT:** Causes serious irritation to eyes. May cause tearing, redness and discomfort.

**EFFECTS OF OVEREXPOSURE - INGESTION:** Ingestion may result in nausea, vomiting, diarrhea and pain. May cause dizziness and drowsiness and/or stupor. May cause central nervous system depression.

**EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS:** Significant exposure to this chemical may adversely affect people with chronic disease of the respiratory system, central nervous system, kidney, liver, skin, and/or eyes. Exposure may damage liver and kidneys. May cause target organ damage. Possible brain damage from overexposure.

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicological effects

	<u>Value</u>	<u>Species</u>	<u>Method</u>	<u>Validation</u>
<b>Fish</b>	LC50 >100 mg/l (48 h)	golden orfe		
<b>Daphnia</b>	EC50 >100 mg/l (48 h)	Daphnia magna		

### 12.2. Persistence and degradability

<b>Physicochemical degradability</b>	> 50 % COD decrease
<b>Biological degradability</b>	The product is biodegradable.

### 12.3. Bioaccumulative potential

No information available.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

No information available.

### 12.6. Other adverse effects

#### General regulation

Do not allow uncontrolled leakage of product into the environment.

Product is not allowed to be discharged into the ground water or aquatic environment.

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste code No.	Name of waste
08 03 12*	waste ink containing dangerous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

**DISPOSAL METHOD:** Dispose of waste in accordance with all local, state and federal regulations.



Always dispose of any waste in accordance with all local, state, and federal regulations.

## 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 (butanone)	PRINTING INK RELATED MATERIAL (butanone)	PRINTING INK RELATED MATERIAL (butanone)
14.3. Transport hazard class(es)	3	3	3
14.4. Packing group	II	II	II
14.5. Environmental hazards	No	No	No

### 14.6. Special precautions for user

No information available.

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

No information available.

### Land and inland navigation transport ADR/RID

Hazard label(s) 3  
tunnel restriction code D/E  
Special provisions 640D  
Classification code F1

### 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

#### VOC standard

VOC value: -805 g/L

### 15.2. Chemical Safety Assessment

No information available.



## 16. OTHER INFORMATION

**Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined, N.I. - No Information**

### **Recommended uses and restrictions**

Solvent for industrial ink jet printers. Only for industrial usage.

National and local regulations concerning chemicals shall be observed.

### **Further information**

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

### **Wording of the H-phrases specified in chapter 3 (not the classification of the mixture!)**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

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.