



**SOLDER GEL CASCADE 1 - GEL CAS1**

**SAFETY DATA SHEET**

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

**SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

Product name : SOLDER GEL CASCADE 1

Product code : GEL CAS1.

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

Soft soldering

**Use descriptor system (REACH) :**

SU 3 Industrial uses : uses of substances as such or in preparations at industrial sites

PC 38 Welding and soldering products (with flux coatings or flux cores), flux products

**1.3. Details of the supplier of the safety data sheet**

Registered company name : MBO.

Address : Rue de la Fonderie.21800.Chevigny-Saint-Sauveur.FRANCE.

Telephone : 00 33 3 80 46 12 58. Fax : 00 33 3 80 46 66 59.

admin@mbosolder.com

www.mbosolder.com

**1.4. Emergency telephone number : +33 (0)1 45 42 59 59.**

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

**SECTION 2 : HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Eye irritation, Category 2 (Eye Irrit. 2, H319).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

**2.2. Label elements**

**In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms :



GHS07

Signal Word :

WARNING

Additional labeling :

Hazard statements :

H319 Causes serious eye irritation.

Precautionary statements - Prevention :

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**2.3. Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

It is recommended to wear safety glasses, protective gloves, to wash hands after use and to work with a good ventilation of area, and suitable fumes extraction system locally installed.

**SOLDER GEL CASCADE 1 - GEL CAS1**

Its use during soldering may produce or release fumes which can be sensitizing for the respiratory system.

**SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures****Composition :**

Identification	(EC) 1272/2008	Note	%
MIXTURE OF ISOMERS			20.00 - 45.00 %
ETHOXYLATED AMINE			20.00 - 40.00 %
CAS: 124-04-9 EC: 204-673-3 REACH: 01-2119457561-38-0000	GHS07 Wng Eye Irrit. 2, H319	[1]	0.00 - 15.00 %
ADIPIC ACID			

**Information on ingredients :**

[1] Substance for which maximum workplace exposure limits are available.

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.  
NEVER induce swallowing by an unconscious person.

**4.1. Description of first aid measures****In the event of exposure by inhalation :**

Take affected persons into fresh air. If irritation persists, get medical attention.

**In the event of splashes or contact with eyes :**

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

**In the event of splashes or contact with skin :**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation persists, get medical attention.

If burns should occur from molten metal, treat for burn and get medical assistance if necessary.

Beware of products that may remain between the skin and clothes , the watch , the shoes...

**In the event of swallowing :**

Seek medical attention, showing the label.

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

No data available.

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

No data available.

**SECTION 5 : FIREFIGHTING MEASURES**

Non-flammable.

**5.1. Extinguishing media****Suitable methods of extinction**

In the event of a fire, use :

- dry chemical agents
- sprayed water or water mist
- carbon dioxide (CO<sub>2</sub>)

**Unsuitable methods of extinction**

In the event of a fire, do not use :

- water jet



**SOLDER GEL CASCADE 1 - GEL CAS1**

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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

**5.3. Advice for firefighters**

Wear full body protective clothing and appropriate self-contained breathing apparatus.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

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

Consult the safety measures listed under headings 7 and 8.

Keep away from heat and sun. Keep away from flames and sources of ignition.

**For non first aid worker**

Avoid any contact with the skin and eyes.

Keep persons without protective equipment away from danger area.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Prevent any material from entering drains or waterways.

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

After cooling, contain and collect spillage with absorbent materials.

**6.4. Reference to other sections**

No data available.

**SECTION 7 : HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

**7.1. Precautions for safe handling**

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

The workplace must be ventilated and fumes must be captured at the emission source.

Wear protective shoes and gloves.

**Fire prevention :**

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid eye contact with this mixture.

**Prohibited equipment and procedures :**

No smoking, eating or drinking in areas where the mixture is used.

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

No data available.

**Storage**

Keep container closed when the product is not used.

Store in the original packaging, sealed, in the refrigerator ( between 5 and 10 ° C ), protected from the weather and away from sources of heat, for a period of 6 months.

**Packaging**

Always keep in packaging made of an identical material to the original.

**7.3. Specific end use(s)**

No data available.

**SOLDER GEL CASCADE 1 - GEL CAS1**
**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1. Control parameters**
**Occupational exposure limits :**

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
124-04-9	5 mg/m <sup>3</sup>	-	-	-	-

**Derived no effect level (DNEL) or derived minimum effect level (DMEL):**

ADIPIC ACID (CAS: 124-04-9)

**Final use:**

Exposure method:  
 Potential health effects:  
 DNEL :

**Workers.**

Inhalation.  
 Short term local effects.  
 5 mg of substance/m<sup>3</sup>

**Predicted no effect concentration (PNEC):**

ADIPIC ACID (CAS: 124-04-9)

Environmental compartment:  
 PNEC : Soil.  
 0.0228 mg/kg

Environmental compartment:  
 PNEC : Fresh water.  
 0.126 mg/l

Environmental compartment:  
 PNEC : Sea water.  
 0.0126 mg/l

**8.2. Exposure controls**
**Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

**- Eye / face protection**

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

Prescription glasses are not considered as protection.

Provide eyewash stations in facilities where the product is handled constantly.

**- Hand protection**

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Recommended properties :

- Impervious gloves in accordance with standard EN374

**- Body protection**

Suitable type of protective clothing :

- protective work clothing



**SOLDER GEL CASCADE 1 - GEL CAS1**

- protective shoes

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

**- Respiratory protection**

Independent breathing apparatus for respiratory protection :

It is recommended to set up a fumes exhaust system closer to their emission. In case of insufficient ventilation, wear suitable respiratory equipment. In case of formation of vapors, wear suitable respiratory equipment with filter.

**- Thermal risks**

The product could cause burns during soldering.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES**

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

**General information :**

Physical state : Paste.

**Important health, safety and environmental information**

pH :	Not relevant.
Boiling point/boiling range :	Not specified.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	> 1
Water solubility :	Soluble.
Melting point/melting range :	Not specified.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.

**9.2. Other information**

Solubility of residues : water and alcohol

**SECTION 10 : STABILITY AND REACTIVITY**

**10.1. Reactivity**

The product is stable under normal conditions of use and storage, but reacts with strong oxidisers.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

Reaction with strong oxidizers.

**10.4. Conditions to avoid**

**10.5. Incompatible materials**

**10.6. Hazardous decomposition products**

No hazardous decomposition under normal conditions of use.

**SECTION 11 : TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

**11.1.1. Substances**

**Acute toxicity :**

ADIPIC ACID (CAS: 124-04-9)

Oral route : LD50 = 5560 mg/kg  
Species : Rat

Dermal route : LD50 > 7940 mg/kg



**SOLDER GEL CASCADE 1 - GEL CAS1**

Inhalation route : Species : Rabbit  
LC50 > 7.7 mg/l  
Species : Rat

**11.1.2. Mixture**

**Acute toxicity :**

No adverse health effect is expected under normal conditions of use.

**Skin corrosion/skin irritation :**

The product may cause sensitization of the skin with prolonged contact.

**Serious damage to eyes/eye irritation :**

May cause eye irritation due to the fumes during soldering.

**Respiratory or skin sensitisation :**

Its use during soldering may produce or release fumes which can be sensitizing for the respiratory system.

**Other information**

The product massive ingestion can lead to digestive disorders, réneaux, nervous and blood.

**SECTION 12 : ECOLOGICAL INFORMATION**

**12.1. Toxicity**

Do not allow product to reach ground water, water source or sewage system.

**12.1.1. Substances**

ADIPIC ACID (CAS: 124-04-9)

Fish toxicity :

LC50 > 1000 mg/l

Species : Brachydanio rerio

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 46 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability**

**12.2.1. Substances**

ADIPIC ACID (CAS: 124-04-9)

Biodegradability :

Rapidly degradable.

**12.3. Bioaccumulative potential**

**12.3.1. Substances**

ADIPIC ACID (CAS: 124-04-9)

Octanol/water partition coefficient :

log K<sub>ow</sub> = 0.093

**12.4. Mobility in soil**

No data available.

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

No data available.

**12.6. Other adverse effects**

No data available.



**SOLDER GEL CASCADE 1 - GEL CAS1**

**SECTION 13 : DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**SECTION 14 : TRANSPORT INFORMATION**

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 - IMDG 2014 - ICAO/IATA 2015).

**SECTION 15 : REGULATORY INFORMATION**

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

**- Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.

**- Container information:**

No data available.

**- Particular provisions :**

No data available.

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

We cannot anticipate any and all conditions and situations under which the information and our products or the combination of both with others will be used. We do not assume any liability in the safety and suitability of our products alone or in combination with others. Users must make their own tests to determine the safety and suitability of each product used alone or with other products for their own use.

Except any previous written agreement, our products are sold without guarantee and customers must assume all liability for any loss or damage suffered by themselves or by third parties, either from handling or use of our products alone or with others. In case of any difference or variation seen during the use of the products we request that you contact our technical department.

**Wording of the phrases mentioned in section 3 :**

H319 Causes serious eye irritation.

**Abbreviations :**

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation



**SOLDER GEL CASCADE 1 - GEL CAS1**

RID : Regulations concerning the International carriage of Dangerous goods by rail.

GHS07 : Exclamation mark