SAFETY DATA SHEET
SDS Name: **Alloy Sol Flux**
SolderWeld, Inc.

SECTION I: Indentification of the substance/mixture and the company

1.1 Product Identifier

Product name Alloy Sol Flux

1.2 Relevant Identified uses of the substance and uses advised against

1.2.1 Relevant identified uses

Main use category : Professional Use
Industrial/Professional use spec : For Professional use only
Use of substance : Brazing, soldering, and welding products, flux products

1.2.2 Uses advised against

No additional information available

1.3 Details of Supplier of the Safety Data Sheet

SolderWeld, Inc.
2050 N 300 W #72
Spanish Fork, UT 84660
USA
800-356-8449
info@solderweld.com

1.4 Emergency Telephone Number

Emergency Number : 001-800-424-9300 (Chemtrec)

SECTION 2: Hazards Identification

2.1 Classification of the substance

CLP/GHS Classification (1272/2008):
Acute Toxicity – Oral, Category 4
Skin Corrosion, Category 1B
Specific Target Organ Toxicity (Single Exposure), Category 3
Hazardous to the Environment – Long-Term, Category 2

EU Classification (67/548/EEC):
Harmful (Xn), Irritant (Xi), Dangerous for the Environment (N), R22, R36/37/38, R51/53

Hazardous Classification per 29CFR 1910.1200 (Rev. July 1, 2012):
Acute Toxicity – Oral, Category 4
Skin Corrosion, Category 1B
Specific Target Organ Toxicity (Single Exposure), Category 3
Hazardous to the Environment – Long-Term, Category 2

Adverse physicochemical, human health and environmental effects

2.2 Label elements

Hazard pictograms (CLP)

Signal word (CLP) : Danger

Hazardous ingredients : Lithium Chloride
Zinc Chloride
Sodium Fluoride

Hazard statements (CLP) : H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H335 – May cause respiratory irritation.
H411 – Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 – Wash skin and hair thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
P304+P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes.
P310 – Immediately call a POISON CENTER or doctor/physician.
P330 – Rinse mouth.
P363 – Wash contaminated clothing before reuse.
P391 – Collect spillage.
P403+P233 – Store in a well-ventilated place. Keep container tightly closed.
P405 – Store locked up.
P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other Hazards

No additional information available

SECTION 3: Hazards Identification

3.1 Mixture

Chemical Identity	CAS #	Range %	OSHA PEL (mg/m3)	Carcinogenicity	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)	Hazardous Classification per 29CFR 1910.1200 (Rev. July, 2012)
Lithium Chloride	7447-41-8	30-45	NA	No	(Xn) R22	(H302) Acute Tox. 4 (H315) Skin Irrit.. 2 (H319) Eye Irrit.. 2A (H335) STOT SE 3	(H302) Acute Tox. 4 (H315) Skin Irrit.. 2 (H319) Eye Irrit.. 2A (H335) STOT SE 3
Zinc Chloride	7646-85-7	6-10	1 PPM	No	(Xn) R22	(H302) Acute Tox. 4 (H314) Skin Corr. 1B (H410) Aquatic C. 1	(H302) Acute Tox. 4 (H314) Skin Corr. 1B (H410) Aquatic C. 1
Potassium Chloride	7447-40-7	30-45	10 PPM	No	Not Dangerous	Not Hazardous	Not Hazardous
Sodium Fluoride	7681-49-4	10-25	2.5 PPM	No		(H301) Acute Tox. 3 (H315) Skin Irrit.. 2 (H319) Eye Irrit.. 2A	(H301) Acute Tox. 3 (H315) Skin Irrit.. 2 (H319) Eye Irrit.. 2A
Sodium Chloride	7647-14-5	8-13	10 PPM	No	Not Dangerous	Not Hazardous	Not Hazardous

4.1 Description of first aid measures

First aid measures general:

First aid measures after inhalation: Remove to fresh air immediately or administer oxygen. Get medical attention immediately.

First aid measures after skin contact: Flush skin with large amounts of water. Get medical attention if conditions persist.

First aid measures after eye contact: Flush eyes with water for at least 10 minutes. Get medical attention.

First aid measures after ingestion: Obtain medical attention immediately if ingested. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: : May cause respiratory irritation.
Symptoms/injuries after skin contact: : May cause moderate irritation.
Symptoms/injuries after eye contact: : May cause eye irritation.
Symptoms/injuries after ingestion: : Harmful if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the mixture

Fire hazard: Chloride and fluoride fumes with high heat. Hydrogen Chloride Gas, Zinc/zinc oxides, Potassium Oxides, Sodium Oxides
Explosion hazard: No additional information provided
Reactivity in case of fire: No additional information provided
Hazardous decomposition products in case of fire: No additional information provided

5.3 Advice for firefighters

Precautionary measure fire: No additional information provided
Firefighting instructions: No additional information provided
Protection during firefighting: Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General measures:

6.1.1 For non-emergency personnel

Protective equipment: Wear suitable protective clothing, gloves and eye or face protection.
Emergency procedures: Ventilate area. Avoid contact with skin and eyes. Avoid breathing dust/fume.
Measures in case of dust release: Where excessive dust may result, use approved respiratory protection equip.

6.1.2 For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. Wear suitable protective clothing, gloves and eye or face protection. For further

information refer to section 8: “Exposure controls/personal protection”. Avoid contact with skin and eyes. Avoid breathing dust/fume.

Emergency procedures: Evacuate unnecessary personnel. Ventilate area.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

For containment: No special measures required.

Methods for cleaning up: Recover mechanically the product. This material and its container must be disposed of in a safe way and as per local legislation.

Other information: Dispose of in accordance with relevant local regulations. This material and its container must be disposed of as hazardous waste.

6.4 Reference to other sections

For further information refer to section 8: “Exposure controls/personal protection”. For disposal of solid materials or residues refer section13: “Disposal considerations”.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume.

Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures: Ensure adequate ventilation, especially in confined areas.

Storage conditions: Store locked up. Store in well-ventilated place. Keep cool

Incompatible products: Acetylene, ammonia, ammonium nitrate, aqua regia, dioxane, ethylene oxide, chlorine trifluoride, halogens, hydrogen peroxide, hydrazine, mononitrate, hydrazoic acid, hydroxylamine, hydrogen sulfide, performic acid, phosphorus, selenium, sulfur, titanium plus potassium chlorate, bromates chlorates and iodate of alkali and alkali earth metals.

Storage area: Store in a well-ventilated area.

Packaging materials: Keep only in original container.

7.3 Specific end use

Other hot work operations with metals.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The usual precautionary measures for handling chemicals should be followed. Keep away from food, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before break and at the end of the work. Store all protective clothing separately. Maintain an ergonomically appropriate working environment. Wear protective equipment. Keep unprotected persons away. Avoid causing dust.

8.2 Exposure controls

Appropriate engineering controls: Provide adequate general and local exhaust ventilation

Personal protective equipment: Combined gas/dust mask with filter type P3. Gloves. Safety glasses.

Protective clothing.
Materials for protective clothing: Wear suitable protective clothing
Hand protection: Protective gloves
Eye protection: Safety glasses.
Skin and body protection: Wear suitable protective clothing
Respiratory protection: Combined gas/dust mask with filter type P3

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	- Powder
Appearance:	- White
Color:	- Odourless
Odor:	- Not Available
Odor Threshold:	- Not Available
pH:	- Not Available
Relative evaporation rate:	- 500° C
Melting point:	- Not Available
Freezing point:	- N/A
Boiling point:	- Not Available
Flash point:	- Not Available
Auto-ignition temp:	- Not Available
Decomposition temperature:	- Not Available
Flammability (solid, gas):	- NA
Vapor pressure:	- NA
Relative vapor density at 20 C:	- Not Available
Relative density:	- 1%
Solubility:	- Not Available
Log pow:	- Not Available
Viscosity, kinematic:	- Unlimited
Viscosity, dynamic:	- Exothermic.
Explosive properties:	- Not Available
Oxidizing properties:	- Not Available
Explosive limits:	- Not Available

9.2 Other information

No additional information available

SECTION 10: Stability and reactivity

10.1 Reactivity

No additional information available

Safe under normal conditions

10.3 Possibility of hazardous reactions

Hydrogen chloride fumes, fluorides with high heat.

10.4 Conditions to avoid

Excess heat or cold. Metals Contact with acids liberates very toxic gas.

10.5 Incompatible materials

Glass or porcelain.

10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute Effects: Lithium Chloride is an antidepressant/antipsychotic and may affect behavior/Central Nervous System (drowsiness, mental confusion, somnolence, muscle weakness, contraction, spasticity, tremors) if ingested in high doses.

Eye Contact: may cause severe irritation with possible eye burns and irreversible eye injury. Also it may cause corneal ulceration, chemical conjunctivitis, and opacification, and glaucoma and severe iritis.

Skin Contact: Causes skin irritation with possible burns, especially if skin is wet or moist. Also it may be absorbed by the skin. Inhalation: may cause severe respiratory tract irritation, headache, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), delayed lung edema, bronchial asthma. Inhalation of fumes may cause mental fume fever. It is characterized by flu-like symptoms (fever, chills, cough, muscle pain, weakness), chest pain.

SECTION 12: Ecology information

12.1 toxicity

No available data.

12.2 Persistance and degradability

Persistence and degradability: No available data.

12.3 Bioaccumulative potential

Bioaccumulative potential: No available data.

12.4 Mobility in soil

Ecology - Soil: No available data.

12.5 Results of PBT and vPvB assessment

No available data.

12.6 Other adverse effects

Other adverse effects: No available data.
Additional information: No other effects known

SECTION 13: Disposal consideration

13.1 Waste treatment methods

Regional legislation (waste):	Disposal must be done according to official regulations
Waste treatment methods:	Dispose of contents/container in accordance with licensed collectors sorting instructions
Waste disposal recommendations:	Dispose of contents/container to a hazardous or special waste facility.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1 UN number

UN-No. (ADR)	UN1759
UN-No. (IMDG)	Not applicable
UN-No. (IATA)	Not applicable
UN-No. (ADN)	Not applicable
UN-No. (RID)	

14.2 UN proper shipping name

Proper shipping name (ADR)	Corrosive solid, NOS,
Proper shipping name (IMDG)	Not applicable
Proper shipping name. (IATA)	Not applicable
Proper shipping name (ADN)	Not applicable
Proper shipping name (RID)	Not applicable

14.3 Transport hazard class(es)

ADR	
Transport hazard class(es)	8
IMDG	
Transport hazard class(es)	Not Applicable
IATA	
Transport hazard class(es)	Not Applicable
ADN	
Transport hazard class(es)	Not Applicable
RID	
Transport hazard class(es)	Not Applicable

14.4 Packing group

Packing group (ADR)	III
Packing group (IMDG)	Not applicable
Packing group (IATA)	Not applicable
Packing group (ADN)	Not applicable
Packing group (RID)	Not applicable

14.5 Environmental hazards

Dangerous for the environment	No
Marine pollutant	No
Other information	No supplementary information available

SECTION 15: Regulatory information

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

15.1.1 EU-regulations

15.1.2 National regulations

No additional information available

15.2 Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH- statements:

Hazard Statements:
H301 – Toxic if swallowed.
H302 – Harmful if swallowed.
H314 – Causes severe skin burns and eye damage.
H315 – Causes skin irritation.
H319 – Causes serious eye irritation.
H335 – May cause respiratory irritation.
H410 – Very toxic to aquatic life with long lasting effects
H411 – Toxic to aquatic life with long lasting effects.
R-Phrases:
R22 – Harmful if swallowed.
R25 – Toxic if swallowed.
R34 – Causes burns.
R36/38 – Irritating to eyes and skin.
R36/37/38 – Irritating to eyes, respiratory system and skin.
R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-Phrases:
S22 – Do not breathe dust.
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.
S45 – In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 – This material and its container must be disposed of as hazardous waste.
S61 – Avoid release to the environment.

*This information must be included in all SDS that are copied and distributed for this material.

Please retain this sheet for your files. SolderWeld, Inc. maintains a file of Safety Data Sheets (SDS) for each rods and fluxes produced in compliance with Federal OSHA Hazard Communication Standard (29 CFR 1910.1200) & various right-to-know laws.

The information and recommendations contained within this publication have been compiled from sources believed to be reliable and to represent the best information available to SolderWeld, Inc. at the time of issue. It is our policy to include an SDS with initial orders for each product. This submission is to become a matter of record and need not accompany subsequent shipments for the same product to the same customer. The information contained on this sheet is intended solely for employee health and safety education and not for contract specification purposes. No warranty, guarantee, or representation is made by SolderWeld, Inc., nor does SolderWeld, Inc. assume any responsibility in connection there within; nor can it be assumed that all acceptable safety measures or other safety measures may not be required under particular or exceptional conditions or circumstances. Should you need additional information, contact us.