



CANFIELD TECHNOLOGIES, LLC



BOW ELECTRONIC SOLDERS

Safety Data Sheet

According to 1907-2006/EC, Article 31

Version: 1.0

1. Chemical Product & Company Information

Product Name: Soldermate 11 Flux

Details of the supplier of the safety data sheet.

This Safety Data Sheet has been updated in accordance with the Globally Harmonized System (GHS).

Manufacturer Name: Canfield Technologies/BOW Electronic Solders

Address: 1 Crossman Road, Sayreville, NJ 08872

General Phone Number: 732-316-2100

INFOTRAC 24 Hour Emergency Telephone Number: 1-800-535-5053

SDS Creation Date 6-Jan-15

SDS Revision Date: 6-Jan-15

2. Hazard Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS08 Health Hazard

STOT RE 2

H373 May cause damage to organs through prolonged or repeated exposure.



GHS05

Skin corr. 1A

H314 Causes severe skin burns and eye damage.



GHS07

STOT SE 3

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

Label elements

Labeling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS05



GHS07



GHS08

Signal word Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

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

P303+P361+P353 IF ON SKIN (or hair): Remove/ take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

P301-P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P402+P404 Store in a dry place. Store in a closed container.

P501 Dispose of contents/container in according with local/regional/national regulations.

Other hazards

Results of PBT and vPvB assessment

PBT : Not applicable

vPvB: Not applicable

3.Composition/ information on ingredients

Chemical characterization: Mixtures

Description: Mixtures of the substances listed below with nonhazardous additions.

Chemical components:

				Percentage %
CAS: 7646-85-7	Zinc chloride		Skin Corr. 1B H314 ; Eye Dam. 1 H318	25-35%
EINECS: 231-592-0			Acute Tox. 4, H302 Eye Irrit. H319	3-5%
EINECS: 235-186-4				
CAS: 7732-18-5	Water			60-72%
EINECS: 231-791-2				

Additional information:

This solder flux product does not contain any Substance of Very High Concern (SVHC) on the European Chemicals Agency (ECHA) Candidate list.

4. First Aid

Description of first aid measures

After inhalation: Supply fresh air, consult doctor in case of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Seek immediate medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed.

Indication of any immediate medical attention and special treatment needed.

5. Firefighting

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Nitrogen oxides (Nox)

Carbon dioxide (CO₂)

Advice for fire fighters

Protective equipment: Wear self-contained respiratory protective device.

6. Accidental Release Measures

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the area.

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation.

Environmental precautions: Do not allow to enter sewers/surface or ground water.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Melted solder will solidify on cooling and can be scraped up. Use caution to avoid breathing fumes if a gas torch is used to cut up large pieces.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See section 13 for disposal information.

7. Handling and Storage

Handling:

Precautions for safe handling: Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Store in dry conditions.

Exposure to sulfur or to high humidity will tarnish solder surface.

Specific end use (s) No further relevant information available.

8. Exposure Controls & Personal Protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 7646-85-7 Zinc chloride

WEL Short-term value: 2mg/m³

Long-term value: 1mg/m³

CAS: 12125-02-9 Ammonium chloride

WEL Short-term value: 20mg/m³

Long-term value: 10mg/m³

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

When ventilation is not sufficient to remove fumes from the breathing zone, a NIOSH safety approved respirator or

Self-contained breathing apparatus should be worn. Consult with local procedures for selection, training, inspection and

Maintenance of the personal protective equipment.

Protection of hands:



Protective gloves

Material of gloves:

Nitrile rubber, NBR

Natural rubber, NR

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and to be observed.

Eye protection:



Face Shield or Safety glasses



Apron

9. Physical & Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance

Form:	Liquid
Color:	Colorless to light yellow
Odor:	Mild
pH-value at 20 °C:	4

Change in condition

Melting point/melting range: Undetermined.

Boiling point/ Boiling range: 104°C

Flash point: Undetermined.

Self-igniting: Product is not self igniting.

Danger of explosion: Product does not present an explosion hazard.

Density at 20°C (68°F): 1.51 g/cm³

Vapor pressure at 20 C: 23 hPa

Solubility in / miscibility with water: Fully miscible.

10. Stability & Reactivity

Reactivity

Chemical stability

Thermal decomposition /conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: Strong acids, strong oxidizers.

Hazardous decompositions products:

Zinc oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

CAS: 7646-85-7 Zinc Chloride

Oral : LD50 350 mg/kg (rat)

CAS: 12125-02-9 Ammonium Chloride

Oral : LD50 1650 mg/kg (rat)

Primary irritant effects:

Skin corrosion/irritation: Strong caustic effect on skin and mucous membranes.

Serious eye damage/irritation: Strong irritant with the danger of severe eye injury.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and the danger of perforation of esophagus and stomach.

12. Ecological Information

Toxicity: No ecotoxicity data was found for the product.

Aquatic toxicity: No environmental information found for this product.

Additional ecological information

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Result of PBT and vPvB assessment

PBT: Not applicable.

VPvB: Not applicable.

13. Disposal Considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Disposal must be made in accordance with official regulations.

Uncleaned packaging's

Recommendations: Disposal must be made in accordance with official regulations.

14. Transport Information

UN- NUMBER

IMDG, IATA UN1840

UN proper shipping name

ADR, IMDG, IATA UN1840, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ZINC CHLORIDE),8,III

Transport hazard class (es)

ADR, IMDG, IATA



Class

8 Corrosive substances.

Label

8

Packing group	III
ADR, IMDG, IATA	III
Environmental hazards:	Not applicable.
Marine pollutant:	No
Special precautions for user	Not applicable.
Danger code (kemler):	80
EMS Number:	F-A, S-B
Segregation groups	Acids
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
Transport/Additional information:	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner package: 30 ml Maximum net quantity per outer package: 1000 ml
Transport category	3
Tunnel restriction code	E
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner package: 30 ml Maximum net quantity per outer package: 1000 ml
UN " Model Regulation " :	UN1840, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (ZINC CHLORIDE),8,III

15. Regulatory Information

Safety, Health and Environmental regulation/ legislation specific for the substance or mixture

All ingredients are listed on the following Government Inventories:

- China:** Inventory of Existing Chemical Substances in China (IECSC)
Korea: Korea Existing Chemicals List (ECL)
Europe: European Inventory of Existing Commercial Substances (EINECS)
Japan: Inventory of Existing and New Chemical Substances (ENCS)
Philippines: Philippine Inventory of Chemicals and Chemical Substances (PICCS)
USA: TSCA (Toxic Substances Control Act) TSCA Inventory of Chemical Substances
USA The following information relates to product regulation specific to the USA.

Labeling according to Regulation (EC) NO 1272/2008

The product has classified and labeled according to the CLP regulation.

Hazard pictograms



GHS05



GHS07



GHS08

Signal word Danger

Hazard statements

- H314** Causes severe skin burns and eye damage.
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Precautionary statements

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P301-P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P402+P404 Store in a dry place. Store in a closed container.
P501 Dispose of contents/container in according with local/regional/national regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Additional Information

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Bow/Canfield Technologies extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

Department issuing Safety Data Sheet (SDS): Product Compliance / EHS Department

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

IMDG: International Maritime Code for Dangerous Goods.

DOT: US Department of Transportation.

IATA: International Air Transport Association.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

EINECS : European Inventory of Existing Commercial Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent.

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1 : Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity- Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity- Single exposure, Hazard Category 2

***Data compared to the previous version altered.**