

SAFETY DATA SHEET

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product identifier : **Burnley Soldering Paste - Korean**

Product Code(s) : BSP2E-K

Relevant identified uses of the substance or mixture and uses advised against

: Soldering paste.
Use pattern : professional use.

Details of the supplier of the safety data sheet:

G.F. Thompson Company Ltd.

620 Steven Court
Newmarket, ON, Canada
L3Y 6Z2

Telephone : (905) 898 2557

Emergency Telephone Number : 001-905-252-4793 (Canada)

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

paste - reddish brown. Slight petroleum odour.

Most important hazards:

This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008. Classification:

Skin corrosion/irritation - Category 1B; H314
Specific target organ toxicity - single exposure - Category 3; H335
Acute aquatic hazard - Category 1; H400
Chronic aquatic hazard - Category 1; H410

The preparation is classified as dangerous in accordance with Directive 1999/45/EC. Hazardous classification:

Xn - Harmful
R22 - Harmful if swallowed.
C - Corrosive
R34 - Causes burns.
N - Dangerous for the environment
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements

Signal word: Danger!

Hazard statements:

H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
H410 - Very toxic to aquatic life with long lasting effects.

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Precautionary statements:

P260 - Do not breathe fumes or vapours.

P264 - Wash hands thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

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

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

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

P363 - Wash contaminated clothing before re-use.

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

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P310 - Immediately call a POISON CENTRE or doctor/physician.

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 regulation.

Hazard pictograms:**Other hazards**

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed. Prolonged or repeated overexposure could cause adverse liver effects.

Environmental precautions: Avoid release to the environment. Very toxic to aquatic life with long lasting effects.

PBT assessment: This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Substances**

Not applicable

Mixtures

Chemical nature: Mixture - Petroleum hydrocarbon; Zinc salt.

The following substances shall be indicated according to legislation:

Chemical name	CAS #	EC No.	Concentration	EU Classification	CLP Classification
Petrolatum	8009-03-8	232-373-2	65.0 - 76.0	*not hazardous	*not hazardous
Zinc chloride	7646-85-7	231-592-0	20.0 - 24.5	Xn - Harmful; R22 C - Corrosive; R34 N - Dangerous for the environment; R50/53	**Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Note:

*The following petroleum derived chemicals were not produced from a carcinogenic substance: Petrolatum.

**The above CLP Acute toxicity Classifications for the following chemicals are 'Minimum Classifications': Zinc chloride.

For the full text of the H and R phrases mentioned in this Section, see Section 2.

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SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do NOT induce vomiting. Rinse mouth. Give small amounts of water to drink. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately.
- Inhalation* : Immediately remove person to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician or poison control centre immediately.
- Skin contact* : IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Call a physician or poison control centre immediately.
- Eye contact* : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

Most important symptoms and effects, both acute and delayed

- : Causes severe skin burns and eye damage.
- May cause respiratory irritation.
- May cause severe irritation and corrosive damage in the mouth, throat and stomach.
- Could result in pulmonary edema (fluid accumulation).
- Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.

Indication of any immediate medical attention and special treatment needed

- : Immediate medical attention is required. Causes burns.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

- : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

- : None known.

Special hazards arising from the substance or mixture

- : Product may float, and be re-ignited at the water's surface. The pressure in sealed containers can increase under the influence of heat. In the event of fire the following can be released: Carbon oxides; Hydrogen chloride gas; Chlorine; Zinc oxide; Hydrocarbons.

Advice for firefighters

Protective equipment for fire-fighters

- : Wear self-contained breathing apparatus and protective suit. Fight fire with normal precautions from a reasonable distance.

Special fire-fighting procedures

- : Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : Wear chemically resistant personal protective equipment during cleanup. Wear protective gloves/clothing and eye/face protection. Keep people away from and upwind of spill/leak. Corrosive!

Environmental precautions : Do not allow material to contaminate ground water system.

Methods and material for containment and cleaning up

- : Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Pick up and transfer to properly labelled containers. Avoid dust formation. Contact the proper local authorities. Clean contaminated floors and objects thoroughly while observing environmental regulations.

Reference to other sections

- : Refer to protective measures listed in sections 7 and 8. Refer to Section 13 for disposal of contaminated material.

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SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use only in well-ventilated areas. Wear chemically resistant protective equipment during handling. Wear protective gloves/clothing and eye/face protection. Avoid contact with skin, eyes and clothing. Do not breathe fumes or vapours. Keep away from heat and sources of ignition. Keep away from bases and incompatibles. Keep melting temperatures as low as possible to minimize generation of fumes. Keep containers closed when not in use. Wash thoroughly after handling. Discard contaminated leather goods, such as shoes.

Conditions for safe storage, including any incompatibilities

- : Store in cool/well-ventilated place. Keep away from heat. Inspect periodically for damage or leaks. Protect against physical damage. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep out of the reach of children. Store locked up.

Specific end use(s)

- : Soldering paste.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

<u>Exposure Limits:</u>			
<u>Chemical Name</u>	<u>Exposure Limits</u>	<u>Type</u>	<u>Notes</u>
Petrolatum	None known.	European Union (OEL)	None.
Zinc chloride	1 mg/m ³ (TWA) 2 mg/m ³ (STEL)	Korea (ISHA) (OEL)	(fumes)
	1 mg/m ³ (TWA)	France (OEL)	(fumes)
	1 mg/m ³ (TWA) 2 mg/m ³ (STEL)	Poland (OEL)	None.
	1 mg/m ³ (TWA) 2 mg/m ³ (STEL)	Spain (OEL)	(fumes)
	1 mg/m ³ (TWA) 2 mg/m ³ (STEL)	The United Kingdom (WELs)	(fumes)

Exposure controls

Ventilation and engineering measures

- : Use only in well-ventilated areas. Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. In case of insufficient ventilation wear suitable respiratory equipment.

Respiratory protection

- : Respirators may be used when engineering and work practice controls are not technically feasible, or when they fail and need to be supplemented. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used. The type of respiratory protection will depend on the conditions of use (see also EN 149).

Skin protection

- : Wear protective gloves/clothing. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.

Eye / face protection

- : Wear eye/face protection. Wear as appropriate: Tightly fitting safety goggles; Face-shield. See also EN 166.

Other protective equipment

- : Ensure that eyewash stations and safety showers are close to the workstation location.

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General hygiene considerations

- : Do not breathe fumes or vapours. Avoid contact with skin, eyes and clothing. Keep melting temperatures as low as possible to minimize generation of fumes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

- Appearance** : paste - reddish brown
- Odour** : Slight petroleum odour.
- Odour threshold** : No information available.
- pH** : No information available.
- Flash point** : 182 - 221°C
- Flashpoint (Method)** : closed cup
- Lower flammable limit (% by vol.)** : No information available.
- Upper flammable limit (% by vol.)** : No information available.
- Flammability (solid, gas)** : Not applicable.
- Auto-ignition temperature** : No information available.
- Decomposition temperature** : No information available.
- Oxidizing properties** : None.
- Explosive properties** : Not explosive.
- Initial boiling point and boiling range** : No information available.
- Melting/Freezing point** : 37.8°C
- Relative density** : 0.87 @ 20°C
- Solubility in water** : Soluble in cold water
- Other solubility(ies)** : No information available.
- Vapour pressure** : 218 mmHg @ 20°C
- Vapour density** : No information available.
- Partition coefficient: n-octanol/water** : No information available.
- Viscosity** : No information available.
- Evaporation rate (BuAe = 1)** : No information available.

Other Information

- Volatiles (% by weight)** : < 1%
- Volatile organic Compounds (VOC's)** : No information available.

Other physical/chemical comments

- : No additional information.

SECTION 10. STABILITY AND REACTIVITY

- Reactivity** : Not normally reactive.
- Chemical stability** : Stable under normal conditions.
- Possibility of hazardous reactions** : Hazardous polymerization does not occur.
- Conditions to avoid** : Direct sources of heat. Incompatible products Do not use in areas without adequate ventilation. Keep melting temperatures as low as possible to minimize generation of fumes.
- Incompatible materials** : strong oxidizers such as calcium hypochlorite (pool chlorine) ; Strong bases; Potassium.

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Hazardous decomposition products

- : In the event of fire the following can be released: Carbon oxides; Hydrogen chloride gas; Chlorine; Zinc oxide; Hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological effects:

- Acute toxicity** : According to the classification criteria of the European Union, this product is not considered as being an acutely toxic chemical.
- Skin corrosion/Irritation** : This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008.
Classification:
Skin corrosion/irritation - Category 1B - Causes severe skin burns and eye damage.
- Serious eye damage/irritation** : This material is classified as a Skin corrosion/irritation Category 1A material. Causes severe skin burns and eye damage.
- Respiratory or skin sensitisation** : According to the classification criteria of the European Union, this product is not considered as being an allergic respiratory sensitiser.
According to the classification criteria of the European Union, this product is not considered as being an allergic skin sensitiser.
- Germ cell mutagenicity** : Contains no ingredient listed as a mutagen.
- Carcinogenicity** : Contains no ingredient listed as a carcinogen.
- Reproductive toxicity** : Contains no ingredient listed as toxic to reproduction.
- STOT-single exposure** : This mixture is classified as hazardous in accordance with Regulation (EC) No 1272/2008.
Classification:
Specific target organ toxicity - single exposure - Category 3. May cause respiratory irritation.
- STOT-repeated exposure** : According to the classification criteria of the European Union, this product is not expected to cause target organ toxicity through repeated exposures.
- Aspiration hazard** : According to the classification criteria of the European Union, this product is not considered as being an aspiration hazard to humans.
- Toxicological data** : The calculated ATE values for this mixture are:
ATE oral = 4118 - 4297 mg/kg

See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Petrolatum	No information available.	> 5000 mg/kg	> 4000 mg/kg
Zinc chloride	No information available.	1100 mg/kg	No information available.

- Routes of exposure** : Eye contact; Skin contact; Skin Absorption; Ingestion; Inhalation.
- Effects of acute exposure** : Inhalation: May cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, choking and wheezing. Could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed.
- Skin contact: Causes severe skin burns.
- Eye contact: Causes serious eye damage. May cause blindness.
- Ingestion: May cause severe irritation and corrosive damage in the mouth, throat and stomach.

Potential Chronic Health Effects

- : Chronic skin contact with low concentrations may cause dermatitis. Prolonged or repeated overexposure could cause adverse liver effects.

Other important hazards

- : None known or reported by the manufacturer.

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : Very toxic to aquatic life with long lasting effects. There is no data available for this product. Should not be released into the environment. Contains: Zinc chloride.

The acute toxicity of zinc chloride is (WHO 2001, EHC # 221):

Toxicity to fish - LC50/96h/rainbow trout = 0.17 mg/L

Toxicity to daphnia - EC50/48h/daphnia = 0.28 mg/L

Persistence and degradability

: Contains: Zinc chloride. Zinc chloride is an inorganic material. Biodegradation is not applicable to inorganic materials.

Bioaccumulation potential : No data is available on the product itself.

Mobility in soil : The product itself has not been tested.

Results of PBT and vPvB assessment

: This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

Other Adverse Environmental effects

: None known.

Water contaminating class (Germany)



: 3 (self classified)

SECTION 13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods:**

Handling for Disposal : Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.


Methods of Disposal : Dispose of in accordance with the European Directives on waste and hazardous waste. Waste must be classified and labelled prior to recycling or disposal. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
ADR/RID	UN1759	CORROSIVE SOLID, N.O.S. (Zinc chloride)	8	III	
EU ADR/RID Classification Code	C10 - Corrosive substances without subsidiary risk; Other corrosive substances; solid				
EU ADR / RID Hazard Identification Number	80 - corrosive or slightly corrosive substance				
ADR/RID Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 kg; in packages not exceeding 30 kg gross mass.				
ICAO/IATA	UN1759	Corrosive solid, n.o.s. (Zinc chloride)	8	III	
ICAO/IATA Additional information	Refer to the appropriate Packing Instruction, prior to shipping this material. Review all State and Operator Variations, prior to shipping this material.				

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IMDG	UN1759	CORROSIVE SOLID, N.O.S. (Zinc chloride)	8	III	
IMDG Additional information	May be shipped as Limited Quantity when transported in containers no larger than 5.0 kg; in packages not exceeding 30 kg gross mass. This product meets the criteria for an environmentally hazardous material according to the IMDG Code. "Marine pollutant" must be included with the shipping description on documentation.				

Special precautions for user : Wear chemically resistant protective equipment during handling.

Environmental hazards : This mixture meets the criteria for an environmentally hazardous material according to the IMDG Code. See Section 12 for more environmental information.

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

: Not applicable.

SECTION 15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture**

- : 1. Substances presenting a physical, health or environmental hazard within the meaning of Regulation (EC) No. 1272/2008.
- 2. Classification according to Regulation (EC) No. 1272/2008 on the classification of hazardous mixtures.
- 3. This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
- 4. In accordance with the legislation of the United Kingdom.
- 5. German legislation on water endangering substances VwVwS (see Section 12)

Chemical safety assessment : A chemical safety assessment has not been carried out by the Manufacturer of this product.

SECTION 16. OTHER INFORMATION

Legend : ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS: Chemical Abstract Services
EC: European Community
ECHA: European Chemicals Agency
EN: European Standard
EU: European Union
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
ISHA: Industrial Safety and Health Act
IUCLID: International Uniform Chemical Information Database
LC: Lethal Concentration
LD: Lethal Dose
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
WEL: Workplace Exposure Limit

Information Source : 1. Material Safety Data Sheet from manufacturer.
2. Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2013 (Chempendium, RTECs, HSDB, INCHEM).
3. European Chemicals Bureau, Existing Chemicals Work Area, EINECS Information System, 2013.
4. European Chemicals Agency, Classification Legislation, 2013.
5. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2013.

Preparation Date (dd/mm/yyyy) : 28/02/2015

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H & R-Phrases (Full text) : H302 - Harmful if swallowed.
H400 - Very toxic to aquatic life.
Refer to section 2 for additional H and R phrases not listed here.

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<u>Prepared for:</u> G.F. Thompson Co. Ltd. 620 Steven Court Newmarket, ON, Canada, L3Y 6Z2 Telephone: 001-905- 898-2557 Please direct all enquiries to G.F. Thompson.	
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