

## 1 PRODUCT AND COMPANY IDENTIFICATION

**Trade name:** TSF-6852 Soldering Flux

**Relevant identified uses of the substance or mixture and uses advised against** Soldering 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/Supplier:**

Kester

800 West Throntdale Ave.

Itasca, IL 60143

Tel (630) 616-4000

Fax (630) 616-4044

Kester Components Pte Ltd

500 Chai Chee Lane

Singapore 469024

Tel: 65-64491133

**Information department:** SDS Coordinator (630) 616-6844

**Emergency telephone number:**

CHEMTREC 24-Hour Emergency Response Telephone Number : (800) 424-9300

CHEMTREC 24-Hour Emergency Response (Outside US & Canada) Telephone Number : (703) 527-3887

## 2 HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

**Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

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

Hazard pictograms



GHS07

**Signal word** Warning

**Hazard statements**

H315 Causes skin irritation.

**Precautionary statements**

P280

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

P264

Wash thoroughly after handling.

P362

Take off contaminated clothing and wash before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

**NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 1

Reactivity = 0

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**HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

**Other hazards****Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

**3 COMPOSITION OF MIXTURE****Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions.

CAS No.	Description	% Range
	Proprietary solvent	50-100%
CAS: 29911-28-2 EINECS: 249-951-5	2-Propanol, 1-(2-butoxy-1-methylethoxy)-	2.5-10%
	Non-Hazardous Material	2.5-10%
CAS: 7732-18-5 EINECS: 231-791-2	Water	2.5-10%

**Additional information:**

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

**4 FIRST AID MEASURES****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 No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

**5 FIREFIGHTING MEASURES****Extinguishing media****Suitable extinguishing agents:** Use fire fighting measures that suit the environment.**Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Carbon monoxide (CO)

Nitrogen oxides (NOx)

**Advice for firefighters****Protective equipment:** Wear self-contained respiratory protective device.**6 ACCIDENTAL RELEASE MEASURES****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:**

Absorb liquid components with liquid-binding material.

Dispose of the collected material according to regulations.

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**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** Store in cool, dry place in tightly closed receptacles.**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: None.

**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****Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information:

PEL = Permissible Exposure Limit (OSHA)

TLV = Threshold Limit Value (ACGIH)

OSHA = Occupational Safety and Health Administration

ACGIH = American Conference of Governmental Industrial Hygienists

**Exposure controls****Personal protective equipment:**

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Wash hands before breaks and at the end of work.

Breathing equipment:

Exposure Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation to control airborne levels below recommended exposure limits.

When ventilation is not sufficient to remove airborne levels 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 has to be observed.

Eye protection:

Safety Glasses with Sideshields at all times.

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*Face Shield when refilling.***9 PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties****General Information****Appearance:**

Form: Viscous  
 Color: Opaque  
 Odor: Mild

**pH-value:** Not determined.**Change in condition**

Melting point/Melting range: Undetermined.  
 Boiling point/Boiling range: > 300°C (> 572 °F)

**Flash point:** > 100°C (> 212 °F)**Ignition temperature:** 371°C (700 °F)**Auto igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Explosion limits:**

Lower: 2.6 Vol %  
 Upper: 12.6 Vol %

**Vapor pressure at 20°C (68 °F):** 0.1 hPa**Density at 20°C (68 °F):** 1.1 g/cm<sup>3</sup> (9.18 lbs/gal)**Solubility in / Miscibility with****Water:** Fully miscible.**10 STABILITY AND 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 decomposition products:** No dangerous decomposition products known.**11 TOXICOLOGICAL INFORMATION****Information on toxicological effects****Acute toxicity:***Primary irritant effect:**on the skin: Irritant to skin and mucous membranes.**on the eye: Irritating effect.*

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**Additional toxicological information:***Carcinogenic categories**IARC (International Agency for Research on Cancer)**None of the ingredients is listed.**NTP (National Toxicology Program)**None of the ingredients is listed.***12 ECOLOGICAL INFORMATION****Toxicity****Aquatic toxicity:** *No further relevant information available.***Results of PBT and vPvB assessment****PBT:** *Not applicable.***vPvB:** *Not applicable.***13 DISPOSAL CONSIDERATIONS****Waste treatment methods****Recommendation:** *Disposal must be made according to official regulations.***Uncleaned packagings:****Recommendation:** *Disposal must be made according to official regulations.***Recommended cleansing agent:** *Alcohol***14 TRANSPORT INFORMATION****UN-Number****DOT, ADN, IMDG, IATA****ADR***Not applicable**Not applicable**Not regulated***UN proper shipping name****DOT, ADR, ADN****IMDG, IATA****Transport hazard class(es)***Not applicable**Not regulated***DOT****Class***Not applicable**Not regulated.***ADR, ADN, IMDG, IATA****Class***Not applicable***Packing group****DOT, ADR, IMDG, IATA***Not applicable***Environmental hazards:****Marine pollutant:***No***Special precautions for user***Not applicable.***Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code***Not applicable.***15 REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****USA** *The following information relates to product regulation specific to the USA.*

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**SARA (Superfund Amendments and Reauthorization Act)****Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

**TSCA (Toxic Substances Control Act):** Kester certifies that all components listed below for the subject finished product are on the TSCA Inventory of Chemical Substances and are not subject to any chemical specific regulation under TSCA Section 12(b) export notification requirements delineated at 40 CFR part 707, subpart D.

All ingredients are listed or exempt from listing.

**California Proposition 65****Chemicals known to cause cancer:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

**Carcinogenic categories****EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**CANADA:****Workplace Hazardous Materials Identification (WHMIS):**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation (CPR) and the Safety Data Sheet (SDS) contains all of the information required by the CPR.

**Labelling according to Regulation (EC) No 1272/2008**

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

**Hazard pictograms**

GHS07

**Signal word Warning****Hazard statements**

H315 Causes skin irritation.

**Precautionary statements**

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

P264 Wash thoroughly after handling.

P362 Take off contaminated clothing and wash before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**16 OTHER INFORMATION**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Kester 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 data on this Material 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

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*and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Material Safety Data Sheet as a source for hazard information.*

**Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (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 Labelling of Chemicals*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*WHMIS: Workplace Hazardous Materials Information System (Canada)*

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

USA