

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2008

Revision: 16.12.2008

1 Identification of the substance/preparation and of the company/undertaking

Product details

Trade name: 951-BN*

Application of the substance / the preparation Soldering flux

Manufacturer/Supplier:

Kester
800 W. Thorndale Ave.
Itasca, IL 60143

Tel.(847) 297-1600
Fax.(847) 390-9338

Further information obtainable from:

Information in case of emergency:

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

2 Hazards identification

Hazard description:



Xi Irritant
F Highly flammable

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Has a narcotizing effect.

R 11 Highly flammable.

R 36 Irritating to eyes.

R 67 Vapours may cause drowsiness and dizziness.

GHS label elements



Danger

2.6/2 - Highly flammable liquid and vapour.



Warning

3.3/2A - Causes serious eye irritation.

3.8/3 - May cause drowsiness or dizziness.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/ equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

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

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Response:

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

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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

Call a POISON CENTER or doctor/physician if you feel unwell.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Disposal:

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

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol	Xi, F; R 11-36-67 Danger: 2.6/2 Warning: 3.3/2A, 3.8/3	50-100%
CAS: 110-15-6 EINECS: 203-740-4	succinic acid	Xi; R 36 Warning: 3.3/2A	≤ 2.5%
CAS: 111-46-6 EINECS: 203-872-2	2,2'-oxybisethanol	Xn; R 22 Danger: 3.1.0/3	≤ 2.5%
CAS: 103-23-1 EINECS: 203-090-1	bis(2-ethylhexyl) adipate		≤ 2.5%

4 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. If symptoms persist, consult a doctor.

After swallowing: Induce vomiting, if person is conscious. Seek medical help.

5 Fire-fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards caused by the substance, its products of combustion or resulting gases:

In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

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*Aliphatic aldehydes***Protective equipment:** *Wear self-contained respiratory protective device.*

6 Accidental release measures

Person-related safety precautions:*Keep away from ignition sources.**Ensure adequate ventilation***Measures for environmental protection:** *Do not allow product to reach sewage system or any water course.***Measures for cleaning/collecting:***Absorb with clay, diatomaceous earth, dry sand, or other inert material. Do not use combustible materials such as sawdust. Place in a chemical waste container. Flush residual with water.*

7 Handling and storage

Handling:**Information for safe handling:***Ensure good ventilation/exhaustion at the workplace.**Open and handle receptacle with care.***Information about fire - and explosion protection:***Keep ignition sources away - Do not smoke.**Protect against electrostatic charges.***Storage:****Requirements to be met by storerooms and receptacles:** *No special requirements.***Information about storage in one common storage facility:** *Store away from oxidizing agents.***Further information about storage conditions:** *Store in cool, dry conditions in well sealed receptacles.*

8 Exposure controls/personal protection

Additional information about design of technical facilities: *No further data; see item 7.***Ingredients with limit values that require monitoring at the workplace:****67-63-0 propan-2-ol**

OES	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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Personal protective equipment:**General protective and hygienic measures:***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 safety approved respirator or self-contained breathing apparatus should be worn.*

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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:

Tightly sealed goggles

Safety glasses

9 Physical and chemical properties

General Information

Form: Liquid
Colour: Colourless
Odour: Alcohol-like

Change in condition**Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** 76 °C**Flash point:** 18 °C**Ignition temperature:** 399 °C

Danger of explosion: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower: 2 Vol %
Upper: 12 Vol %

Vapour pressure at 20 °C: 40 mm Hg**Density at 20 °C:** 0.800 g/cm³

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**Solubility in / Miscibility with
water:**

Fully miscible.

10 Stability and reactivity

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

Materials to be avoided: Strong acids, strong oxidizers.

Dangerous reactions No dangerous reactions known.

Dangerous decomposition products:

Carbon monoxide and carbon dioxide

Aldehyde

11 Toxicological information

Acute toxicity:

LD/LC50 values relevant for classification:

67-63-0 propan-2-ol

Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50/4 h	30 mg/l (rat)

Primary irritant effect:

on the skin: Possible local irritation by contact with flux or fumes.

on the eye: Smoke during soldering can cause eye irritation.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

12 Ecological information

General notes: Do not allow product to reach ground water, water course or sewage system.

13 Disposal considerations

Product:

Recommendation

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

Disposal must be made according to official regulations.

European waste catalogue

14 06 03	other solvents and solvent mixtures
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Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**14 Transport information****Land transport ADR/RID (cross-border)****ADR/RID class:** 3 Flammable liquids.**Danger code (Kemler):** 33**UN-Number:** 1219**Packaging group:** II**Hazard label** 3**Description of goods:** 1219 ISOPROPANOL (ISOPROPYL ALCOHOL), mixture**Maritime transport IMDG:****IMDG Class:** 3**UN Number:** 1219**Label** 3**Packaging group:** II**EMS Number:** F-E,S-D**Marine pollutant:** No**Proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL), mixture**Air transport ICAO-TI and IATA-DGR:****ICAO/IATA Class:** 3**UN/ID Number:** 1219**Label** 3**Packaging group:** II**Proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL), mixture**UN "Model Regulation":** UN1219, ISOPROPANOL (ISOPROPYL ALCOHOL), mixture, 3, II**15 Regulatory information****Code letter and hazard designation of product:**

Xi Irritant

F Highly flammable

Risk phrases:

11 Highly flammable.

36 Irritating to eyes.

67 Vapours may cause drowsiness and dizziness.

Safety phrases:

2 Keep out of the reach of children.

7/9 Keep container tightly closed and in a well-ventilated place.

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29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

46 If swallowed, seek medical advice immediately and show this container or label.

16 Other information

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 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.

Relevant R-phrases

11 Highly flammable.

22 Harmful if swallowed.

36 Irritating to eyes.

67 Vapours may cause drowsiness and dizziness.

Contact: Branch Manager (Malaysia Only) Telephone No : 04-6414633

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent