

## 1 Identification of the substance/mixture and of the company/undertaking

### Product identifier

**Trade name:** NXG1 SOLDER PASTE (Sn96.5/Ag3/Cu0.5)

**Relevant identified uses of the substance or mixture and uses advised against** Soldering Flux

Application of the substance / the preparation Solder paste

### Details of the supplier of the safety data sheet

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

#### Manufacturer/Supplier:

Kester

800 West Throntdale Ave.

Itasca, IL 60143

Tel (630) 616-4000

Fax (630) 616-4044

**Further information obtainable from:** 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**



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

### Label elements

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

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

Hazard pictograms



GHS05 GHS08

Signal word **Danger**

Hazard-determining components of labelling:

bis(2-butoxyethyl) ether

Denatured Acid Hydrogenation Gum Resin

Proprietary Glycol Ether

Modified Rosin

Hazard statements

H318 Causes serious eye damage.

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according to 1907/2006/EC, Article 31

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H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

**Precautionary statements**

P285 In case of inadequate ventilation wear respiratory protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

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

P310 Immediately call a POISON CENTER or doctor/physician.

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

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

PBT: Not applicable.

vPvB: Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**
**Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 7440-31-5 EINECS: 231-141-8	tin	50-100%
CAS: 144413-22-9	Denatured Acid Hydrogenation Gum Resin ⚠ Resp. Sens. 1, H334 ⚠ Skin Sens. 1, H317	2.5-10%
CAS: 7440-22-4 EINECS: 231-131-3	silver	2.5-10%
CAS: 65997-06-0	Modified Rosin ⚠ Resp. Sens. 1, H334 ⚠ Skin Sens. 1, H317	2.5-10%
CAS: 112-73-2 EINECS: 204-001-9	bis(2-butoxyethyl) ether ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H312	≤ 2.5%
	Proprietary Glycol Ether ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H312	≤ 2.5%

**SVHC**

This 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.

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## 5 Firefighting measures

### Extinguishing media

**Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

**Special hazards arising from the substance or mixture** In case of fire, the following can be released:

### 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:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### 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 aerosols.

**Information about fire - and explosion protection:** No special measures required.

### Conditions for safe storage, including any incompatibilities

#### Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

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 facilities:** No further data; see item 7.

### Control parameters

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

#### 7440-31-5 tin

PEL (USA)	Long-term value: 2 mg/m <sup>3</sup> metal
REL (USA)	Long-term value: 2 mg/m <sup>3</sup>
TLV (USA)	Long-term value: 2 mg/m <sup>3</sup> metal
TLV (Taiwan)	Long-term value: 2 mg/m <sup>3</sup> and its inorganic compounds

#### 7440-22-4 silver

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<p>WEL (Great Britain)          PEL (USA)          REL (USA)          TLV (USA)            TLV (Taiwan)</p>	<p>Long-term value: 0.1 mg/m<sup>3</sup>          Long-term value: 0.01 mg/m<sup>3</sup>          Long-term value: 0.01 mg/m<sup>3</sup>          Long-term value: 0.1 mg/m<sup>3</sup>          metal          Long-term value: 0.01 mg/m<sup>3</sup>          metal dust, soluble compounds and fume (as Ag)</p>
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**Exposure controls**

**Personal protective equipment:**

*General protective and hygienic measures:*

*The usual precautionary measures are to be adhered to when handling chemicals.*

*Keep away from foodstuffs, beverages and feed.*

*Immediately remove all soiled and contaminated clothing*

*Wash hands before breaks and at the end of work.*

*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.*

*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 Side Shields Required*

## 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

*Appearance:*

*Form: Pasty*  
*Colour: Silver grey*  
*Odour: Mild*

**pH-value:** Not determined.

**Change in condition**

*Melting point/Melting range: Undetermined.*  
*Boiling point/Boiling range: 2362°C (4284 °F)*

**Flash point:** > 55°C (> 131 °F)

**Self-igniting:** Product is not selfigniting.

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

**Density at 20°C (68 °F):** 4.5 g/cm<sup>3</sup> (37.553 lbs/gal)

**Solubility in / Miscibility with**

*water: Not miscible or difficult to mix.*

**Solvent content:**

*Organic solvents: 2.4 %*

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Solids content: 96.4 %

**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:**

*LD/LC50 values relevant for classification:*

**65997-06-0 Modified Rosin**

Oral	LD50	> 4000 mg/kg (Rat)
Dermal	LD50	>2500 mg/kg (rabbit)

*Primary irritant effect:*

*on the skin: Irritant to skin and mucous membranes.*

*on the eye: Irritating effect.*

*Sensitization:*

*Sensitization possible through inhalation.*

*Sensitization possible through skin contact.*

**12 Ecological information**

**Toxicity**

**Acquatic toxicity:** *No further relevant information available.*

**Additional ecological information:**

**General notes:**

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

**Results of PBT and vPvB assessment**

**PBT:** *Not applicable.*

**vPvB:** *Not applicable.*

**13 Disposal considerations**

**Waste treatment methods**

**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.*

**Uncleaned packaging:**

**Recommendation:** *Disposal must be made according to official regulations.*

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**14 Transport information**

**Land transport ADR/RID (cross-border)**

**ADR/RID class:** *Not regulated.*

**Maritime transport IMDG:**

**IMDG Class:** *Not regulated.*

**Marine pollutant:** *No*

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** *Not regulated.*

**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**

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

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

*Hazard pictograms*



GHS05 GHS08

*Signal word* **Danger**

*Hazard-determining components of labelling:*

*bis(2-butoxyethyl) ether*

*Denatured Acid Hydrogenation Gum Resin*

*Proprietary Glycol Ether*

*Modified Rosin*

*Hazard statements*

*H318 Causes serious eye damage.*

*H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

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*Precautionary statements*

*P285 In case of inadequate ventilation wear respiratory protection.*

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*P310 Immediately call a POISON CENTER or doctor/physician.*

*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**

*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.*

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**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: Règlement international concernant 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*

*NFPA: National Fire Protection Association (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*