according to Regulation (EC) No 1907/2006 (REACH)

Trade name: Solder-It

Product No: Print date:

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

1.1 Product identifier: Solder-It Solder Paste

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1 Relevant identified uses

Solder Paste

1.3 Details of the supplier of the safety data sheet:

Supplier:

Nordson EFD, LLC 40 Catamore Boulevard East Providence, RI 02914 +1-401-431-7000 complianceservices@nordsonefd.com

1.4 EMERGENCY TELEPHONE NUMBER: Chemtrec (Transportation) +1-800-424-9300

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture:

Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1B), H314 Serious eye damage (Category 1), H318 Acute aquatic toxicity (Category 1), H400 Chronic aquatic toxicity (Category 1), H410

#### 2.2 Label elements

#### **Hazard pictograms**







# Signal word:

Danger

#### **Hazard statements:**

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H410 Very toxic to aquatic life with long lasting effects

## **Precautionary statements:**

P260 Do not breathe dust or mist

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P264 Wash skin thoroughly after handling

P270 Do not eat, drink or smoke when using this product

P273 Avoid release to the environment

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P312 + P330 If SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth

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

P303 + P361 + P353 If ON SKIN: Remove/take off immediately all contaminated clothing. Rinse skin

with water/shower.

P304 + P340 + P310 If INHALED: Remove victim to fresh air and keep at rest in a position comfortable

for breathing. Immediately call a POISON CENTER or doctor/physician.

P305 + P351 + If IN EYES: Rinse cautiously with water for several minutes. Remove contact P338 + P310 lenses, if present and easy to do. Continue rinsing. Immediately contact a

POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before use

P391 Collect spillage P405 Store locked up

P501 Dispose of contents/containers to an approved waste disposal plant

### Supplemental Hazard information (EU): None

#### 2.3 Other hazards

None known

## **SECTION 3.** Composition/information on ingredients

#### 3.1.1 Description of the mixture:

Suspension

#### 3.1.2 Hazardous ingredients

| Substance name       | CAS No.    | INDEX<br>No.         | EC No.    | Concent ration | Classification according<br>Regulation (EC) No. 1272<br>[CLP]  | SCL and/or<br>M-factor |
|----------------------|------------|----------------------|-----------|----------------|--|------------------------|
| Zinc chloride        | 7646-85-7  |                      | 231-592-0 | 2.0-3.0%       | Acute tox. 4; Skin Corr. 1B;<br>Eye Dam. 1; Aquatic Acute 1;<br>Aquatic Chronic 1; H302,<br>H314, H318, H410 |                        |
| Ammonium<br>chloride | 12125-02-9 | 017-<br>014-00-<br>8 | 235-186-4 | 0.5-0.7%       | Acute Tox. 4; Eye Irrit. 2A; Aquatic Acute2; Aquatic Chronic 2; H302, H319, H411                             |                        |
| Tin                  | 7440-31-5  |                      | 231-141-8 | 77-79%         | , , ,  |                        |
| Silver               | 7440-22-4  |                      | 231-131-3 | 0.5-0.7%       |  |                        |
| Copper               | 7440-50-8  |                      | 231-159-6 | 0.5-0.55%      |  |                        |

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#### 3.1.3 Additional information:

This mixture does not contain further substances fulfilling the criteria of hazard class "acute toxicity" according to CLP regulation.

#### **SECTION 4: First aid measures**

4.1

- 4.1.1 General information: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- 4.1.1 Following inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- 4.1.4 Following skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
- 4.1.2 Following eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
- 4.1.5 Following ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- 4.2 Most important symptoms and effects, both acute and delayed

The most important know symptoms and effects are described in the labelling (see section 2.2) and/or section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

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### **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media:

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

## 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: Hydrogen chloride gas, Zinc/zinc oxides.

## 5.3 Advice for fire-fighters:

Wear self-contained breathing apparatus for firefighting if necessary.

#### 5.4 Additional information:

No data available.

#### **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

<u>Protective equipment:</u> Use persona protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

#### 6.2 Environmental precautions:

- 6.3 Methods and material for containment and cleaning up
- **6.3.1 For containment:** Keep in suitable, closed containers.
- **6.3.2** For cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel.
- **6.4** Reference to other sections: For disposal see section 13.

#### **SECTION 7: Handling and storage**

**7.1 Precautions for safe handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. Provide appropriate exhaust ventilation at places where dust may form. For precautions, see section 2.2.

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## 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Highly hygroscopic. Keep in a dry place.

#### Hints on storage assembly:

Storage class: (TRGS 510): Non-combustible, corrosive hazardous material.

Materials to avoid:

## 7.3 Specific end uses:

<u>Recommendations:</u> Apart from uses mentioned in section 1.2 no other specific uses are stipulated.

## **SECTION 8:** Exposure controls/personal protection

## 8.1 Control parameters

## 8.1.1 Occupational exposure limits:

| Limit value<br>type (country<br>of origin) | Substance name | EC-<br>No. | CAS-No.    | Occupational exposure limit value |            | Monitoring and observation processes | Peak<br>limitation | Source    |
|--|----------------|------------|------------|-----------------------------------|------------|--------------------------------------|--------------------|-----------|
|  |                |            |            | Long term                         | Short term |                                      |                    |           |
| TWA  | Zinc           |            | 7646-85-7  | 1.000                             | 1.000      |                                      |                    | OSHA      |
|  | chloride       |            |            | mg/m3                             | mg/m3      |                                      |                    | Table Z-1 |
|  | Ammonium       |            | 12125-02-9 | 10.000                            | 10.000     |                                      |                    | ACGIH     |
|  | chloride       |            |            | mg/m3                             | mg/m3      |                                      |                    | (TLV)     |
|  | Tin            |            | 7440-31-5  | 2                                 | -          |                                      |                    | OSHA      |
|  |                |            |            | mg/m3                             |            |                                      |                    | (PEL)     |
|  |                |            | 7440-50-8  | 0.01mg/                           |            |                                      |                    | ÒSHÁ      |
|  | Silver         |            |            | m3                                |            |                                      |                    | (PEL)     |

## 8.2 Exposure controls

**8.2.1** Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.

#### 8.2.2 Personal protective equipment:

**8.2.2.1 Eye** / **Face protection:** Face shield with safety glasses. Use equipment for eye protecton tested and approved under appropriate standards.

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## 8.2.2.2 Skin protection:

<u>Hand protection:</u> Handle with nitrile gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves afer use. Wash and dry hands.

Body protection: Lab coat or smock.

Other skin protection measures: Wash thoroughly after handling.

**8.2.2.3 Respiratory protection:** Avoid breathing vapours. Where large amounts are used for soldering, use of a vent hood is required.

**8.2.3 Environmental exposure controls:** Prevent further leakage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### SECTION 9. Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

Appearance: Grey paste

**Odor:** Mild odor

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|  | value | concentration | method | temperature | pressure | remark |
|--|-------|---------------|--------|-------------|----------|--------|
| pH   | N/D   |               |        | •           |          |        |
| Melting point/freezing point                 | N/D   |               |        |             |          |        |
| Initial boiling point/boiling range          | N/D   |               |        |             |          |        |
| Flash point                                  | N/D   |               |        |             |          |        |
| Evaporation rate                             | N/D   |               |        |             |          |        |
| Flammability (solid, gas)                    | N/D   |               |        |             |          |        |
| Upper/lower flammability or explosive limits | N/D   |               |        |             |          |        |
| Upper explosive limits                       | N/D   |               |        |             |          |        |
| Lower explosive limits                       | N/D   |               |        |             |          |        |
| Vapour pressure                              | N/D   |               |        |             |          |        |
| Vapour density                               | N/D   |               |        |             |          |        |
| Relative density                             | N/D   |               |        |             |          |        |
| Solubility(ies)                              | N/D   |               |        |             |          |        |
| Partition coefficient:<br>n-octanol/water    | N/D   |               |        |             |          |        |
| Auto-ignition temperature                    | N/D   |               |        |             |          |        |
| Decomposition temperature                    | N/D   |               |        |             |          |        |
| Viscosity                                    |       | _             |        |             |          |        |
| Viscosity, dynamic                           | N/D   |               |        |             |          |        |
| Viscosity, cinematic                         | N/D   |               |        |             |          |        |

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| Explosive properties | N/D |  |  |  |
|----------------------|-----|--|--|--|
| Oxidising properties | N/D |  |  |  |

N/D = No data available

## **SECTION 10: Stability and reactivity**

- 10.1 Reactivity No data available
- 10.2 Chemical stability Stable at normal conditions
- **10.3 Possibility of hazardous reactions** No data available
- 10.4 Conditions to avoid: Exposure to moisture
- 10.5 Incompatible materials: Strong oxidizing agents
- 10.6 Hazardous decomposition products: See section 5

**SECTION 11: Toxicological information** 

#### 11.1 Information on toxicological effects

#### **Acute toxicity**

LD50 Oral – Rat – 350 mg/kg Inhalation: No data available Dermal: No data available

## Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

## Germ cell mutagenicity

No data available

## Carcinogenicity

**IARC:** No components fo this product present at levels greater than or equal to 0.1% is identified

as probable, possible or confirmed human carcinogen by IARC.

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ACGIH: No components fo this product present at levels greater than or equal to 0.1% is identified

as probable, possible or confirmed human carcinogen by ACGIH.

NTP: No components fo this product present at levels greater than or equal to 0.1% is identified

as probable, possible or confirmed human carcinogen by NTP.

**OSHA:** No components fo this product present at levels greater than or equal to 0.1% is identified

as probable, possible or confirmed human carcinogen by OSHA.

Reproductive toxicity: No data available.

Specific target organs: No data available

## **SECTION 12: Ecological information**

### 12.1 Toxicity:

## 12.1.1 Aquatic toxicity

Acute (short-term) fish toxicity

|                            | Effect dose/<br>-concentration | Test<br>duration | Species | Result/<br>Evaluation | Method | Remark |
|----------------------------|--------------------------------|------------------|---------|-----------------------|--------|--------|
| <sup>C</sup> Zinc chloride | LC50                           | 96h              | Carp    | 0.4 – 2.2<br>mg/l     |        |        |

Acute (short-term) toxicity to crustacea

|               | Effect dose/<br>-concentration | Test duration | Species       | Result/<br>Evaluation | Method | Remark |
|---------------|--------------------------------|---------------|---------------|-----------------------|--------|--------|
| Zinc chloride | EC50                           | 48 h          | Daphnia magna | 0.2 mg/l              |        |        |

Acute (short-term) toxicity to algae and cyanobacteria

|               | Effect dose/   | Test     | Species          | Result/    | Method | Remark |
|---------------|----------------|----------|------------------|------------|--------|--------|
|               | -concentration | duration |                  | Evaluation |        |        |
| Zinc chloride | LOEC           | 96 h     | Psuedokirchneri  | 12.5 mg/l  |        |        |
|               |                |          | ella subcapitata |            |        |        |

#### Harmful to aquatic organisms.

#### 12.2 Persistence and degradability

Biodegradation: No data available

Abiotic Degradation: No data available

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### 12.3 Bioaccumulative potential

## **Bioconcentration factor (BCF)**

|          | Species    | Result | Method | Remark |
|----------|------------|--------|--------|--------|
| Zinc     | Pimephales | 63 d   |        |        |
| chloride | promelas   |        |        |        |

## 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety not required/not conducted

#### 12.6 Other adverse effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal considerations**

### 13.1 Waste treatment methods

Contact a licensed professional waste disposal service to dispose of this material. Dispose of in accordance with local, state and national regulations.

## **Section 14: Transport information**

Not regulated.

## **SECTION 15: Regulatory information**

#### **SARA 302 Components**

No chemicals in this material are subject to the reporting requirements fo SARA Title III, Section 302

#### **SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, secton 313:

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Zinc chloride

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CAS # Revision Date 7646-85-7 2007-03-01

**Massachusetts Right To Know Component** 

Zinc chloride 7646-85-7 2007-03-01 Ammonium chloride 12125-02-9 1994-04-01

Pennsylvania Right To Know Component

Zinc chloride 7646-85-7 2007-03-01 Ammonium chloride 12125-02-9 1994-04-01

#### California Prop. 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

#### **SECTION 16: Other information**

## Full test of H-Statements referred to under sections 2 and 3.

Acute tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity
Aquatic Chronic Chronic aquatic toxicity
Eye Dam. Serious eye damage
H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

#### **HMIS Rating**

Health hazard: 3
Chronic health hazard: \*
Flammability: 1
Physical hazard: 0

#### NFPA Rating

Health hazard: 3
Fire hazard: 1
Reactivity hazard: 0

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.