

Material Safety Data Sheet

Techspray No-Clean Desoldering Flux coated braid

1. Product and company identification

Product name	: Techspray No-Clean Desoldering Flux coated braid
Supplier	: Techspray, L.P. 1001 N.W. 1st Street P.O. Box 949 Amarillo, TX 79107 Emergency phone: (800) 858-4043
Synonym	: Sizes: 0.9mm/1.4mm/1.9mm/2.5mm/3.3mm/4.9mm/0.9mm/1.4mm/1.9mm/2.5mm/3.3mm/4.9mm/0.63mm/4.9mm No Clean flux is a synthetic (non-colophony)flux. Per J-STD-004 Section 3.2, it is classified as REL0. Per British Std. EN 29454-1:1993 and ISO9454-1:1990, the No Clean flux has a classification of 1.2.3.B.
Trade name	: No-Clean Desoldering flux coated Braid
Material uses	: Industrial applications: Solder remover
Manufacturer	: Techspray, L.P. 1001 N.W. 1st Street P.O. Box 949 Amarillo, TX 79107 Tel: 806-372-8523 Fax: 806-371-8750
Code	: 1814/1815/1816/1817/1818/1819/1820/1821/1822/1823/1824/1825
MSDS #	: 1814/1815/1816/1817/1818/1819/1820/1821/1822/1823/1824/1825
Validation date	: 8/29/2014.
Print date	: 8/29/2014.
<u>In case of emergency</u>	: Chemtrec - 1-800-858-4043 CANTUC (Canadian Transportation): (613) 996-6666 Emergency phone: (800) 858-4043
Product type	: Solid.

2. Hazards identification

Emergency overview

Physical state	: Solid. [Metal.]
Color	: Various
Odor	: Odorless.
Signal word	: CAUTION!
Hazard statements	: MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Precautionary measures	: Do not ingest. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation	: No known significant effects or critical hazards.
Ingestion	: Harmful if swallowed.
Skin	: May cause skin irritation.

2. Hazards identification

- Eyes** : May cause eye irritation.
- Potential chronic health effects**
- Chronic effects** : Contains material that can cause target organ damage.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : Contains material which causes damage to the following organs: eye, lens or cornea.
Contains material which may cause damage to the following organs: kidneys, liver, gastrointestinal tract, upper respiratory tract, skin.

Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Ingestion** : Adverse symptoms may include the following:
Ingestion Seek medical attention.
- Skin** : Adverse symptoms may include the following:
irritation
redness
- Eyes** : Adverse symptoms may include the following:
irritation
redness
watering
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
copper	7440-50-8	90 - 100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
- Methods for cleaning up**
- Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Place spilled material in a designated, labeled waste container. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

7. Handling and storage

- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Ingredient	Exposure limits
copper	<p>ACGIH TLV (United States, 4/2014). Notes: as Cu TWA: 1 mg/m³, (as Cu) 8 hours. Form: Dust and mist</p> <p>OSHA PEL 1989 (United States, 3/1989). Notes: as Cu TWA: 1 mg/m³, (as Cu) 8 hours. Form: Dusts and Mists TWA: 0.1 mg/m³, (as Cu) 8 hours. Form: Fume</p> <p>NIOSH REL (United States, 10/2013). TWA: 1 mg/m³, (as Cu) 10 hours. Form: Dusts and Mists</p> <p>OSHA PEL (United States, 2/2013). TWA: 1 mg/m³ 8 hours. Form: Dusts and Mists TWA: 0.1 mg/m³ 8 hours. Form: Fume</p> <p>ACGIH TLV (United States, 4/2014). TWA: 0.2 mg/m³ 8 hours. Form: Fume</p>

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Engineering measures** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

- Respiratory** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state : Solid. [Metal.]

Color : Various

Odor : Odorless.

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : Elevated temperature

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

12. Ecological information

Ecotoxicity : Water polluting material. May be harmful to the environment if released in large quantities.

Aquatic ecotoxicity

12. Ecological information

Product/ingredient name	Result	Species	Exposure
copper	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute IC50 13 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute IC50 5.4 mg/l Marine water	Aquatic plants - Plantae - Exponential growth phase	72 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
	Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days	
Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks	

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information

14. Transport information

DOT Classification	Not regulated.	-	-	-	-	Reportable quantity 5263.2 lbs / 2389.5 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Classification	Not regulated.	-	-	-	-	-
Mexico Classification	Not regulated.	-	-	-	-	-
ADR/RID Class	Not regulated.	-	-	-	-	-
IMDG Class	Not regulated.	-	-	-	-	-
IATA-DGR Class	Not regulated.	-	-	-	-	-

PG* : Packing group

15. Regulatory information

HCS Classification : Target organ effects

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined
All components are listed or exempted.
Clean Water Act (CWA) 307: copper

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
copper	90 - 100	No.	No.	No.	No.	Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	copper	7440-50-8	90 - 100
Supplier notification	copper	7440-50-8	90 - 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: COPPER
- New York** : The following components are listed: Copper
- New Jersey** : The following components are listed: COPPER
- Pennsylvania** : The following components are listed: COPPER FUME
- Canada inventory** : All components are listed or exempted.

International regulations

- International lists** :
 - Australia inventory (AICS)**: All components are listed or exempted.
 - China inventory (IECSC)**: All components are listed or exempted.
 - Japan inventory**: Not determined.
 - Korea inventory**: Not determined.
 - Malaysia Inventory (EHS Register)**: Not determined.
 - New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.
 - Philippines inventory (PICCS)**: All components are listed or exempted.
 - Taiwan inventory (CSNN)**: Not determined.

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

16. Other information

Label requirements : MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

Hazardous Material Information System (U.S.A.) :

Health	1
Flammability	0
Physical hazards	0

16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



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