

SAFETY DATA SHEET

DeepTIG™ CS-325

DATE REVISED: November 09, 2017

SECTION 1 -- IDENTIFICATION

Product Name/Part number: DeepTIG™ CS-325

Recommended use: GTA Welding Flux for Carbon Steel Alloys

Manufacturer: Superior Flux & Mfg. Co.
6615 Parkland Blvd
Cleveland OH, 44139

Emergency Contact: CHEMTREC
Emergency Phone: 1-800-424-9300
For other info: (440) 349-3000

SECTION 2 – HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with OSHA HCS (29 CFR 1910)

Carcinogenicity (Category 2) H351

Specific target organ toxicity, repeated exposure (Category 2) H373

See below for full text of H-Statement

GHS Label Elements, including precautionary statements

Pictogram(s):



Signal Word: Warning

Hazard Statement(s)

H350 Suspected of causing cancer

H373 May cause damage to organs through prolonged or repeated exposure

Precautionary statement(s)

P260 Do not breathe dust or fumes.

P280 Wear protective clothing, protective gloves, eye protection, and face protection

P308+P313 If exposed or concerned: Get medical advice.

P314 Get medical advice or attention if you feel unwell.

P405 Store locked up

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations.

Other hazards Inhalation of dusts and fumes can cause metal fume fever. Symptoms can include a metallic or sweet taste in the mouth, sweating shivering, headache, throat irritation, fever, chills, thirstiness, muscle aches, nausea, vomiting, weakness, fatigue, and shortness of breath.

SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Rutile	1317-80-2	0-10
Manganese silicide	12032-86-9	0-10

Unlisted percentages are non-hazardous stabilizers, and water.

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General advice: If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person.

Inhalation: If breathed in, move to fresh air. Ventilate suspected area. If not breathing, give artificial respiration. If exposed or concerned: Get medical advice or attention.

Eyes: Rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Skin: Take off contaminated clothing and shoes. Drench affected area with water for at least 15 minutes. Wash with plenty of soap and water. Get medical advice or attention. Wash contaminated clothing before reuse.

Ingestion: Do NOT induce vomiting. Consult a physician.

Most Important Symptoms and effects, both acute and delayed

Symptoms/Injuries: Causes damage to organs through prolonged or repeated exposure. May cause cancer.

Symptoms/Injuries After Inhalation: May cause cancer by inhalation. During welding, the most significant route of exposure is by the inhalation (breathing) of welding fumes. If welding fumes are inhaled, they can cause a condition commonly known as metal fume fever with symptoms which resemble influenza. Symptoms may be delayed 4-12 hours and begin with a sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms may include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalized feeling of malaise. Fever, chills, muscular pain, mild to severe headache, nausea, occasional vomiting, exaggerated mental activity, profuse sweating, excessive urination, diarrhea and prostration may also occur.

Symptoms/Injuries After Skin Contact: May cause skin irritation

Symptoms/Injuries After Eye Contact: May cause eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. May cause cancer.

If you feel unwell, seek medical advice (show the label where possible).

The most important known symptoms and effects are described in section 2 (labeling)

SECTION 5 – FIREFIGHTING MEASURES

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Use of heavy stream of water may spread fire.

Special Hazards: Product is not flammable, nor is it explosive. Hazardous reactions will not occur under normal condition.

Special Advice for Firefighters: Exercise caution when fighting any chemical fire. Do not breathe fumes or vapors from fire. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment and emergency procedures: Avoid all unnecessary exposure. Do not breathe dust or fumes. Evacuate unnecessary personnel. Ventilate area and equip cleanup crew with proper protection.

See section 8 for personal protection.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter sewers and public waters.

In Case Material is spilled: Clear up spills immediately and dispose of waste safely. Keep and place in suitable, closed containers for disposal according to local regulations. Avoid generation of dust during clean-up

SECTION 7 - HANDLING AND STORAGE

Specific End Use(s): Penetration enhancing compound for GTA Welding of Nickel Alloys.

For professional use only.

Precautions for safe handling: Do not handle until all safety precautions and any special instructions have been read and understood. Do not breathe dust or fumes.

General Precautions: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Additional Hazards when Processed: Fumes from welding, or processing of this material can be harmful if inhaled. Risk of electric shock when welding. Arc rays and sparks can burn skin. This product is intended for use in ARC welding. During this process UV rays irritate the superficial corneal epithelium, causing inhibition of mitosis, production of nuclear fragmentation, and loosening of the epithelial layer. Under experimental conditions in animals, phototoxic effects have been demonstrated at all levels of the cornea, including the stroma and endothelium.

For full precaution statements see Section 2

Storage Requirements: Keep container tightly closed in a dry, cool, and well-ventilated area. Keep container closed when not in use. Store locked up.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS

OSHA Permissible Exposure Limit (PEL): 5 mg/m³

ACGIH Threshold Limit Value (TLV): 0.2 mg/m³

Engineering Controls: Local exhaust and general ventilation must be adequate to meet exposure standards. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Ensure all national/local regulations are observed.

Respiratory Protection: During instances of insufficient ventilation or whenever exposure may exceed established Occupational Exposure Limits, use a NIOSH-approved respirator or self-contained breathing apparatus.

Protective Gloves: Wear chemically resistant protective gloves. Use proper glove removal techniques (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

Eye Protection: Wear goggles with suitable filter lenses when use is cutting or welding.

Body Protection: Wear fire/flame resistant/retardant clothing. Protective coveralls and long sleeves is recommended.

Use equipment for protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166, CEN (EU)

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance	Light Yellow Powder
Odor	None
Odor threshold	No data available
pH	Not applicable
Melting point/Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate (Butyl Acetate = 1)	Not applicable
Flammability (Solid, gas)	No data available
Upper flammability or explosive limits	No data available
Lower flammability or explosive limits	No data available
Vapor pressure	Not applicable
Vapor density (Air = 1)	Not applicable
Relative density (Water = 1)	No data available
Solubility(ies)	Inoluble in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Not applicable

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Will not occur under normal conditions

Stability: Product is stable under recommended storage and handling conditions

Possibility of hazardous reactions: Hazardous polymerization will not occur

Conditions to Avoid: No specific data available

Incompatibility: Strong oxidizers

Hazardous Decomposition Products Carbon oxides (CO, CO₂). Metal oxides. When heated, material emits irritation and harmful fumes.

In the event of fire: See Section 5

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely Route(s) of Exposure: Inhalation, ingestion, skin and eye contact

Acute Toxicity: Not classified

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Suspected of causing cancer:

Rutile (TiO₂): IARC Group 3

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause cancer by inhalation. During welding, the most significant route of exposure is by the inhalation (breathing) of welding fumes. During welding, the most significant route of exposure is by the inhalation (breathing) of welding fumes. If welding fumes are inhaled, they can cause a condition commonly known as metal fume fever with symptoms which resemble influenza. Symptoms may be delayed 4-12 hours and begin with a sudden onset of thirst, and a sweet, metallic or foul taste in the mouth. Other symptoms may include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalized feeling of malaise. Fever, chills, muscular pain, mild to severe headache, nausea, occasional vomiting, exaggerated mental activity, profuse sweating, excessive urination, diarrhea and prostration may also occur.

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Chronic Symptoms: Causes damage to organs through prolonged or repeated exposure. May cause cancer.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity	Not classified
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	Avoid release into the environment.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal	Offer surplus and non-recyclable solutions to a licensed professional waste disposal company. Avoid release to the environment
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SECTION 14- TRANSPORTATION

D.O.T., IMDG and IATA:	Not regulated for transport
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SECTION 15 - REGULATORY INFORMATION

SARA 311/312 Hazards Acute health hazard, Chronic health hazard

Substances listed on the U.S. Toxic Substances Control Act (TSCA) inventory:

Substance	CAS No.
Rutile	1317-80-2
Manganese silicide	12032-86-9
Sodium titanium oxide	12034-36-5

Substances listed on U.S. State Regulation lists:

List	Substance	CAS No.
Pennsylvania – Right to Know (RTK) List	Rutile	1317-80-2

SECTION 16 - OTHER INFORMATION

Further information:

Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

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Reference(s):

EWI SDS

Preparation information

Superior Flux & Mfg. Co.
440-349-3000

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