

FORCE
INDUSTRIES

SAFETY DATA SHEET

DIVISION

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product identifier

Product name: Stanogen Molten Solder Flux

Other means of identification Brand Prince August

Product code: 735930 020797

Recommended use of the chemical and restrictions on use

Recommended use: General purpose top flux

Details of the supplier of the safety data sheet

Manufacturer: Force Industries Division.
28 Industrial Blvd. Paoli, PA 19301, USA

Emergency Telephone number

For hazardous materials incidents only, call CHEMTREC Emergency Response Number: 1-800-424-9300. For all other questions about this product, call Force Industries Division at 610-647-3575.

Revision Date: August 25, 2016

Supersedes: June 22, 2006

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA I-ICS)

Acute Toxicity Oral (Category 4), H302

Skin sensitization (Category 1) H317

Eye Irritation (Category 2A), H319

Acute Aquatic Toxicity (Category 2), H401

Chronic Aquatic Toxicity (Category 2), H411

Hazard statement(s)

H302: Harmful if swallowed

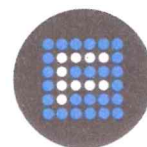
H317: May cause an allergic skin reaction

H319: Causes serious eye irritation

H401 : Toxic to aquatic life

H411 : Toxic to aquatic life with long-lasting effects

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2.2 GHS Label elements, including precautionary statements

Emergency overview

Appearance: Red powder
Physical state: Solid
Odor: None
Signal Word: Warning



Precautionary statement(s)

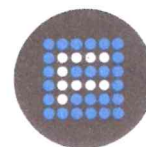
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312+P330: IF SWALLOWED: Call the doctor if you feel unwell.
P302+P352: IF ON SKIN: Wash with plenty of water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P391: Collect spillage.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>EINECS No.</u>	<u>Weight %</u>
Ammonium Chloride	12125-02-9	235-186-4	40 - 60
Iron oxide	1309-37-1	215-168-2	0 - 5
Rosin	8050-09-7	232-475-7	0 - 5
Other Non-hazardous ingredients	Trade Secret	Trade Secret	40 - 60



SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician immediately. Continue rinsing eyes during transport to hospital.

Skin: Wash off with plenty of water. Consult a doctor if a rash or burn develops.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center. Give large quantities of water, milk, or 5% sodium bicarbonate solution.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

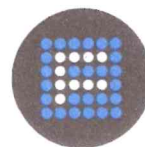
Hydrogen chloride gas and ammonia may be given off. Dense smoke may be generated.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Full protective equipment required.

5.4 Further information

No data available.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

Contain spill, absorb, sweep-up and dispose. Flush area to chemical sewer. Soda ash (sodium bicarbonate) is neutralizer for acid.

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. Provide appropriate exhaust ventilation at places where dust is formed. Professionally wash contaminated clothes before re-use. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

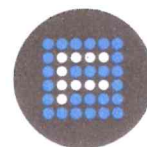
Store flux at ambient conditions. Wash thoroughly after handling to remove all residue.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters****Components with workplace control parameters**

Components	OSHA TWA
Ammonium Chloride	10 mg/m ³
Iron Oxide	5 mg/m ³



8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (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 laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

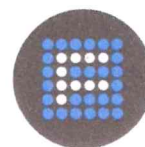
Prevent further leakage or spillage if safe to do so.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state: Red Powder
Odor: None

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Flash point: NA
Vapor pressure: NA
Vapor density: NA
Specific gravity: 1.883 (H₂O = 1 at 72°F)
Solubility in water: Moderate
Evaporation Rate (butyl acetate = 1) NA

9.2 Other safety information

None

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Acid may react with metals to produce explosive gas

10.6 Hazardous decomposition products

Carbon dioxide, water, hydrochloric acid, ammonia, oxides of nitrogen, zinc oxide

SECTION 11: TOXICOLOGICAL INFORMATION

11.2 Effects of Acute Overexposure:

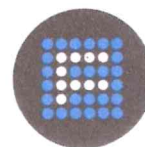
Components	LC50/Inhalation	LC50/Dermal/Rat	LD50/Oral/Rat
Ammonium Chloride	No data available	No data available	1,650 mg/kg
Iron Oxide	No data available	No data available	>10,000 mg/kg

a. Inhalation: No data available.

b. Eyes: Rabbit – Result: Eye Irritation

c. Skin Contact: Rabbit – Result: No Skin Irritation

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d. Ingestion: No data available.

11.3 Primary Route of Exposure:

No data available

11.4 Effects of Chronic Exposure:

No data available.

11.5 Target Organs:

No data available

11.6 Reproductive Effects

No data available

11.7 Carcinogenicity:

No data available

SECTION 12: ECOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Components	LC50/96hr/48hr/24hr	EC50/96/48hr/24hr	Bioaccumulation Concentration Factor	No Observable Effect Concentration/96hr/48hr/24 hr
Ammonium Chloride	209 mg/L (carp) 3.98 mg/L (rainbow trout)	No data available	No data available	No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

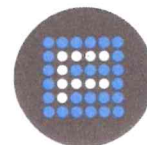
No data available

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No data available

**SECTION 13: DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods**

Product: offer surplus and non-recyclable solutions to a licensed disposal company. Dispose of in accordance with all federal, state, and local regulations.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION**DOT (US)**

Not Regulated

IMDG

Not Regulated

IATA

Not Regulated

SECTION 15: REGULATORY INFORMATION**International Inventories**

USA (TSCA):

Complies

Federal Regulations**SARA Title III 313 Reportable Substances**

No chemicals which are subject to the reporting requirements of the Act and of Title 40 of the Code of Federal Regulations, Part 372.

SARA Title III Section 311/312 Hazard Categories:

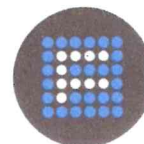
Acute Health Hazard

CERCLA Section 103

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed on 40 CFR 302.4

Ammonium Chloride

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Toxic Substance Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification Section 12 (b) of TSCA:

None

State Regulations (RTK)

Massachusetts Right to Know Components

Component	CAS No.
Ammonium Chloride	12125-02-9

Pennsylvania Right to Know Components

Component	CAS No.
Ammonium Chloride	12125-02-9

New Jersey Right to Know Components

Component	CAS No.
Ammonium Chloride	12125-02-9

California Prop. 65 Components

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

SECTION 16: OTHER INFORMATION

HMIS:

Health: 1

Flammability: 0

Reactivity: 0

PREPARATION INFORMATION: Technical Service Department, Force Industries Division

DISCLAIMER: The data set forth in these sheets are based on information provided by the suppliers of the raw materials and chemicals used in the manufacture of the aforementioned product. Force Industries makes no warranty with respect to the accuracy of the information provided by their suppliers, and disclaims all liability of reliance thereon. Force Industries warrants only that its products conform to their published specifications and no other express warranty is made with regards thereof. We do not guarantee favorable results, and we assume no liability in connection with the use of the products. They are intended for use by persons having technical skill and knowledge, at their own discretion and risk.