alpha

Material Safety Data Sheet

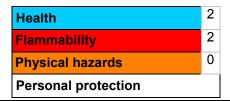
Material Safety Data Sheet

Emergency phone: Alpha Chemtrec #5591

US & Canada: 800 424-9300

Mexico: 01 800 022 1400, (55) 5559 1588





1. Product and company identification

Product name Product Code Manufacturer : ALPHA® WS-600 Red Flux

: 117760

: Cookson Electronics 109 Corporate Blvd.

> South Plainfield, NJ 07080 Toll Free: (800) 367-5460 Main Phone: (908) 791-3000

> > **Supersedes Date**

Fax: (908) 791-3090 www.alphametals.com

Cookson Electronics Mexico, S.A. de C.V

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Mexico

www.cooksonelectronics.com Customer Service: (814) 946-1611

1/14/2010.

Validation date

Prepared by

4/22/2010.T. Valverde

(203)-799-4940

2. Hazards identification

Physical state

Odor

: Liquid. [Gel]

Odorless.

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview

: WARNING!

Combustible liquid. This product contains material(s) that are absorbed through the skin. Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Moderately irritating to the respiratory system. May cause sensitization by inhalation and skin contact. Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Contains material that may cause target organ damage, based on animal data. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after

handling.

Routes of entry

: Dermal contact. Inhalation. Ingestion.

Potential acute health effects

2. Hazards identification

Inhalation

: Moderately irritating to the respiratory system. May cause sensitization by inhalation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Adverse symptoms may include the following: coughing respiratory tract irritation wheezing and breathing difficulties asthma anaphylactic shock Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion

: Harmful if swallowed. Can cause target organ damage. Ingestion may cause gastrointestinal irritation and diarrhea.

Skin

: Irritating to skin. Harmful in contact with skin. This product contains material(s) that are absorbed through the skin. May cause damage to organs in contact with skin. and symptoms similar to those listed under inhalation or ingestion. May cause sensitization by skin contact. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering. Prolonged or repeated contact may cause dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. In the event of any complaints or symptoms, avoid further exposure. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.

Eyes

: Irritating to eyes. Adverse symptoms may include the following: redness, itching, swelling, pain

Potential chronic health effects

Chronic effects

: Contains material that can cause target organ damage. Adverse symptoms may include the following:

Amine: Prolonged skin contact may cause dermatitits. Prolonged contact can cause severe irritation or even burns.

surfactant: Prolonged inhalation of fumes may cause respiratory sensitization. **Surfactant**.: This material has been shown to cause birth defects only at exaggerated doses that were toxic to the mother.

Target organs

: Contains material which may cause damage to the following organs: kidneys, the nervous system, liver, mucous membranes, heart, gastrointestinal tract, upper respiratory tract, skin, eye, lens or cornea.

Carcinogenicity Mutagenicity

: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

: No conclusive data is available to indicate product or any component present at greater than 0.1% may cause heritable genetic effects.

Developmental effects

: No conclusive data is available to indicate product or any component present at greater than 0.1% may cause developmental abnormalities.

Fertility effects

No conclusive data is available to indicate product or any component present at greater than 0.1% may impair fertility.
WARNING: This product contains less than 0.1% of a chemical known to the State of

California Prop. 65

California to cause cancer.

WARNING: This product contains less than 1% of a chemical known to the State of

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Medical conditions aggravated by over-exposure

Pre-existing respiratory, skin and digestive disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by overexposure to this product. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Persons suffering from respiratory problems or allergic responses should not be exposed to or handle powder coatings.

3. Composition/information on ingredients

<u>Name</u>	CAS number	% by weight
Surfactant.	-	20-30
Aromatic alcohol.	-	20-30
Surfactant.	-	10-20
Organic acid	-	10-20
Amine	-	5-10
surfactant	-	5-10
Amine	-	1-5
Surfactant.	-	1-5
surfactant	-	1-5
Surfactant.	-	0.1-1.0

Any ingredient not listed in Section 3 is non-regulated or present in the product in concentrations below legal disclosure limits.

4. First aid measures

Eye contact

Skin contact

Inhalation

Ingestion

Protection of first-aiders

: Check for and remove any contact lenses. Get medical attention if irritation occurs. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open.

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Get medical attention. May cause sensitization by skin contact. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse. In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

: Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

: Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

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. Wear suitable protective clothing, gloves and eye/face protection. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5 . Fire-fighting measures

Flammability of the product : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Extinguishing media

Suitable

: Use dry chemical, CO₂, water spray (fog) or foam.

Not suitable

: Do not use water jet.

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous combustion products Special protective

equipment for fire-fighters

- carbon oxides nitrogen oxides
- : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. 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).

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosionproof equipment. Dispose of via a licensed waste disposal contractor.

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. Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Keep in the original container or approved alternative container. Containers should be kept 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 a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. Exposure controls/personal protection

Product name

Mine

Exposure limits

ACGIH TLV (United States, 1/2008). Absorbed through skin.

TWA: 0.46 ppm 8 hour(s). TWA: 2 mg/m³ 8 hour(s).

OSHA PEL 1989 (United States, 3/1989).

TWA: 3 ppm 8 hour(s). TWA: 15 mg/m³ 8 hour(s).

TWA: 15 mg/m³ 8 hour(s). Form: All forms TWA: 3 ppm 8 hour(s). Form: All forms **NIOSH REL (United States, 6/2008).**

TWA: 3 ppm 10 hour(s). TWA: 15 mg/m³ 10 hour(s).

NIOSH REL (United States, 6/2001).

TWA: 15 mg/m³ 10 hour(s). Form: All forms TWA: 3 ppm 10 hour(s). Form: All forms

ACGIH TLV (United States, 2/2003). Absorbed through skin.

Notes: 1994-1995 Adoption

TWA: 2 mg/m³ 8 hour(s). Form: All forms TWA: 0.46 ppm 8 hour(s). Form: All forms

Consult local authorities for acceptable exposure limits.

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.

Engineering measures

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Processes should be designed to minimize airborne and skin exposure to hazardous substances.

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. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Remove/Take off immediately all contaminated clothing. Contaminated work clothing should not be allowed out of the workplace.

Personal protection
Respiratory

: Use a properly fitted, air-purifying or air-fed respirator complying with NIOSH 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.

8. Exposure controls/personal protection

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. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Eyes

: Avoid contact with eyes. Safety eyewear should be used when there is a likelihood of exposure. Use safety eyewear designed to protect against splash of liquids.

Skin

: Avoid contact with skin and clothing. Wear protective clothing. Body garments used should be based upon the task being performed (e.g., lab coat, chemical resistant protective suit, sleevelets, synthetic apron, gauntlets) to avoid exposed skin surfaces. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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 : Liquid. [Gel]

Flash point : Closed cup: 61°C (141.8°F)

Auto-ignition temperature : Not available.

Flammable limits : Not available.

Color : Red.

Odor : Odorless.

pH : Not available.

Boiling/condensation point : Not available.

Melting/freezing point : Not available.

Relative density : 1.033

Vapor pressure : Not available.
Vapor density : Not available.
Odor threshold : Not available.
Evaporation rate : Not available.
VOC : 330.8 g/l

Dispersibility properties : Easily dispersible in the following materials: cold water and hot water.

10. Stability and reactivity

Stability

: The product is stable.

Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatibility with various substances

: Reactive with oxidizing agents.

Hazardous decomposition products

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

Other Hazardous decomposition products

: carbon oxides (CO, CO₂)

Hazardous polymerization

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

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Surfactant.	LD50 Oral	Rat	1260 mg/kg	-
	LDLo Dermal	Rabbit	1260 mg/kg	-
Aromatic alcohol.	LD50 Oral	Rat	>4300 mg/kg	-
Surfactant.	LD50 Oral	Rat	>500 mg/kg	-
Organic acid	LD50 Oral	Rat	>2000 mg/kg	-
Amine	LD50 Oral	Mouse	3300 mg/kg	-
	LD50 Oral	Rabbit	2200 mg/kg	-
surfactant	LD50 Oral	Rat	2500 mg/kg	-
Amine	LD50 Oral	Rat	3.28 g/kg	-
	LD50 Oral	Rat	>500 mg/kg	-
Surfactant.	LD50 Oral	Rat	500 mg/kg	-
	LD50 Oral	Rat	620 mg/kg	-
surfactant	LD50 Oral	Rat	2500 mg/kg	-
Surfactant.	LD50 Oral	Rat	945 mg/kg	-

Carcinogenicity Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Amine	-	3	-	-	-	-

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Surfactant.	Positive	-	-	Human	Unreported: >45 mg/kg	

Alpha has not conducted specific studies on the toxicity of this product.

12. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Surfactant.	Acute LC50 1 to 10 mg/l	Fish	96 hours
Organic acid	Acute EC50 38900 mg/l	Daphnia	24 hours
	Acute LC50 >5000 mg/l	Fish	48 hours
Amine	Acute LC50 100 mg/L	Daphnia	96 hours
	Acute LC50 >100 mg/L	Daphnia	96 hours
	Acute LC50 2150 ug/L Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 100 mg/L	Fish	96 hours
	Acute LC50 >100 mg/L	Fish	96 hours
	Acute LC50 1370 mg/L	Fish	96 hours
	Acute LC50 1480 mg/L	Fish	96 hours
	Chronic NOEC 540 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling) - 8 to 15 mm	96 hours
Amine	Acute LC50 >1000 ppm	Fish	96 hours
Surfactant.	Acute LC50 2350 ug/L Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 650 to 780 ug/L Fresh water	Fish - Oncorhynchus mykiss - 0.5 to 2.2 g	96 hours
Surfactant.	Acute EC50 <1 mg/l	Daphnia	48 hours
	Acute IC50 <1 mg/l	Algae	72 hours
	Acute LC50 <1 mg/l	Fish	96 hours

13. Disposal considerations

Waste disposal

: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any byproducts should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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
DOT Classification	Not regulated.	-	-	-	

PG* : Packing group

15. Regulatory information

United States

HCS Classification : Combustible liquid

Irritating material Sensitizing material Target organ effects

U.S. Federal regulations : TSCA 5(a)2 proposed significant new use rules: No products were found.

TSCA 5(a)2 final significant new use rules: No products were found.

TSCA 12(b) one-time export: No products were found.

United States inventory

(TSCA 8b)

: All components are listed or exempted.

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Amine	-	-
Supplier notification	Amine	-	-

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer. **WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C

(200°F).

Class D-2B: Material causing other toxic effects (Toxic).

Canada inventory

: All components are listed or exempted.

International lists

China inventory (IECSC) : All components are listed or exempted.

Australia inventory (AICS) : All components are listed or exempted.

16. Other information

Definition of Terms

ACGIH American Conference of Governmental Industrial Hygienists

Ceiling Maximum exposure limit defined by OSHA

CAS Chemical Abstract Service

IARC International Agency for Research on Cancer

NIOSH National Institute for Occupational Safety and Health

NTP National Toxicology Program

OSHA Occupational Safety and Health Administration

PEL Permissible Exposure Limit
REL Recommended Exposure Limit

RTK Right to Know

SARA Superfund Amendments and Reauthorization Act

STEL Short Term Exposure Limit
TLV ACGIH Threshold Limit Value

TLV-C ACGIH Threshold Limit Value, Ceiling

TRADE SECRET Claimed as allowed under 29CFR§1910.1200

TSCA Toxic Substances Control Act
PPE Personal Protection Equipment

CEPA Canadian Environmental Protection Act

DSL Domestic Substance List
NDSL Non-Domestic Substance List
NSN New Substance Notification Rules

Disclaimer

The information contained herein is based on data considered accurate. However, no warranty is expressed of implied regarding the accuracy of these data or the results to be obtained from the use thereof. Additionally, Cookson Electronics assumes no responsibility for injury to the vendee or third persons proximately caused by the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.

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