

**Safety Data Sheet**  
**SFRMA1**

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**SECTION 1: Identification**

**1.1 Product identifier**

Product name	Solder Flux RMA Red
Product number	SFRMA1
Brand	Metron Optics

**1.2 Other means of identification**

I8625R

**1.4 Supplier's details**

Name	Metron Optics
Address	809 Academy Drive Solana Beach, CA 92075 USA
Telephone	858-755-4477
email	mail@metronusa.com

**1.5 Emergency phone number(s)**

CHEMTREC: (800)424-9300  
Outside US and Canada: (703)527-3887

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**SECTION 2: Hazard identification**

**2.1 Classification of the substance or mixture**

**GHS classification in accordance with OSHA (29 CFR 1910.1200)**

- Acute toxicity (chapter 3.1), Cat. 4
- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment - acute hazard (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

**2.2 GHS label elements, including precautionary statements**

**Pictogram**



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### Hazard statement(s)

H302	Harmful if swallowed
H318	Causes serious eye damage
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

### Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P314	Get medical advice/attention if you feel unwell.
P501	Dispose of contents/container to ...
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P273	Avoid release to the environment.
P391	Collect spillage.

### 2.3 Other hazards which do not result in classification

Aggravation of Pre-Existing Conditions: May aggravate pre-existing respiratory disorders, allergy, eczema, skin conditions.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

#### Hazardous components

##### 1. BENZYL ALCOHOL

Concentration  $\geq 1 - \leq 5$  % (Weight)

Other names / synonyms

(HYDROXYMETHYL)BENZENE; ALPHA-HYDROXYTOLUENE; ALPHA-TOLUENOL; BENZAL ALCOHOL; BENZENECARBINOL; BENZENEMETHANOL; BENZOYL ALCOHOL; BENZYL ALCOHOL; BENZYLALCOHOL; HYDROXYTOLUENE; NCI-C06111; PHENOLCARBINOL; PHENYLCARBINOL; PHENYLMETHANOL; PHENYLMETHYL ALCOHOL

EC no. 202-859-9

CAS no. 100-51-6

Index no. 603-057-00-5

##### 2. Rosin, hydrogenated

Concentration  $\geq 5 - \leq 10$  % (Weight)

Other names / synonyms

Rosin, hydrogenated

CAS no. 65997-06-0

##### 3. Isopropyl alcohol 70% in water

Concentration  $\geq 60 - \leq 100$  % (Weight)

Other names / synonyms

2-Propanol; CIDEHOL® 70; IPA 70%; isopropanol; isopropyl alcohol; Isopropyl alcohol 70% in water; Isopropyl, 70%; propan-2-ol

bis(1S,2S,4S)-(1-benzyl-4-tert-butoxycarboxamido-2-hydroxy-5-phenyl)pentyl ammonium succinate

EC no. 414-810-0

CAS no. 67-63-0

Index no. 607-403-00-6

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### 4. C.I. Basic Red 1:1

CAS no. 3068-39-1  
Concentration >=1 - <=40 % (Weight)

### 5. Modified rosin acid

Concentration >= 10 - <= 30 % (Weight)

Other names / synonyms Modified rosin acid

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Get medical attention if irritation develops or persists
In case of eye contact	Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician or poison control center immediately.

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## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

### 5.3 Special protective actions for fire-fighters

Do not use a solid water stream as it may scatter and spread fire.

#### Further information

As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid breathing vapor, aerosol or mist. Avoid contact with skin, eyes and clothing.

### 6.2 Environmental precautions

Avoid runoff into storm sewers, ditches, and waterways.

### 6.3 Methods and materials for containment and cleaning up

Contain spills with an inert absorbent material such as soil, sand or oil dry.

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Remove all sources of ignition. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Use with adequate ventilation. Avoid breathing vapor and fumes. Use only in accordance with directions. To reduce potential for static discharge, bond and ground containers when transferring material.

Wash thoroughly after handling. Avoid inhaling vapors, mists, or fumes

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

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### SECTION 8: Exposure controls/personal protection

#### 8.2 Appropriate engineering controls

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

#### 8.3 Individual protection measures, such as personal protective equipment (PPE)

##### Eye/face protection

Safety glasses with side-shields

##### Skin protection

Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data. Nitrile rubber or natural rubber gloves are recommended.

##### Body protection

Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data.  
Nitrile rubber or natural rubber gloves are recommended.

##### Respiratory protection

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

##### Environmental exposure controls

Facilities storing or utilizing this material should be equipped with an eyewash

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facility and a safety shower.

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### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance/form	Liquid Red
Odor	Alcohol-like
Odor threshold	
pH	
Melting point/freezing point	Not determined.
Initial boiling point and boiling range	82 °C (180 °F)
Flash point	18 °C (64 °F)
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	12.0 Vol %/2.0 Vol %
Upper/lower explosive limits	
Vapor pressure	33 hPa (25 mm Hg) (at 20 °C (68 °F))
Vapor density	
Relative density	0.848 g/cm <sup>3</sup> (at 20 °C (68 °F))
Solubility(ies)	
Partition coefficient: n-octanol/water	
Auto-ignition temperature	399.0 °C (698 °F)
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

#### Other safety information

Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material.

Do not use a solid water stream as it may scatter and spread fire.

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### SECTION 10: Stability and reactivity

#### 10.2 Chemical stability

Stable under normal temperatures and pressures.

#### 10.3 Possibility of hazardous reactions

Not reported.

#### 10.4 Conditions to avoid

Keep away from heat, ignition sources and incompatible materials.

#### 10.5 Incompatible materials

Oxidizing agents. Strong acids and alkalis.

#### 10.6 Hazardous decomposition products

When heated to soldering temperatures, the solvents are evaporated and rosin may be thermally degraded to liberate aliphatic aldehydes and acids

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### SECTION 11: Toxicological information

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### Information on toxicological effects

#### Acute toxicity

Isopropyl Alcohol :

RTECS Number: NT8050000

Eye: Eye - Rabbit Standard Draize test.: 100 mg Eye - Rabbit Standard Draize test.: 10 mg Eye - Rabbit Standard Draize test.: 100 mg/24H

Skin: Administration onto the skin - Rabbit LD50: 12800 mg/kg [Details of toxic effects not reported other than lethal dose value]

Inhalation: Inhalation - Rat LC50: 16000 ppm/8H [Details of toxic effects not reported other than lethal dose value]

Inhalation - Mouse LC50: 53000 mg/m<sup>3</sup> [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes] Inhalation - Rat LC50: 72600 mg/m<sup>3</sup> [Behavioral - General anesthetic Lungs, Thorax, or Respiration - Other changes]

Ingestion: Oral - Rat LD50: 5045 mg/kg [Behavioral - Altered sleep time (including change in righting reflex)

Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Somnolence (general depressed activity)] Oral - Mouse LD50: 3600 mg/kg [Behavioral - General anesthetic] Oral - Rat LD50: 5000 mg/kg [Behavioral - General anesthetic]

Carcinogenicity: IARC: Group 3: Unclassifiable as to carcinogenicity to humans.

Benzyl Alcohol :

RTECS Number: DN3150000

Skin: Administration onto the skin - Rat LD50: 100 pph/90M [Details of toxic effects not reported other than lethal dose value] Administration onto the skin - Rabbit LD50: 2000 mg/kg [Details of toxic effects not reported other than lethal dose value]

Inhalation: Inhalation - Mouse LC50: >500 mg/m<sup>3</sup> [Behavioral - Somnolence #186 Revision:: 9/30/2012 Product Code: #186

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DOT Pictograms:

(general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression] Inhalation - Rat LC50: >500 mg/m<sup>3</sup> [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration - Respiratory depression]

Ingestion: Oral - Rat LD50: 1230 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Excitement Behavioral - Coma] Oral - Mouse LD50: 1360 mg/kg [Details of toxic effects not reported other than lethal dose value] Oral - Mouse LD50: 1360 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration Respiratory depression] Oral - Rat LD50: 1660 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lungs, Thorax, or Respiration Respiratory depression] Oral - Rat LD50: 1.5 mL/kg [Details of toxic effects not reported other than lethal dose value]

#### STOT-single exposure

Eyes. Skin. Respiratory system. Digestive system. Central nervous system.

#### Additional information

Prolonged or repeated skin contact may result in irritation and dermatitis marked by rough, dry cracking skin.

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## SECTION 12: Ecological information

#### Toxicity

Do not allow product to reach ground water, water course or sewage system.

#### Other adverse effects

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## SECTION 13: Disposal considerations

#### Disposal of the product

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Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

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### SECTION 14: Transport information

#### DOT (US)

DOT Shipping Name: ISOPROPANOL, MIXTURE  
DOT UN Number: UN1219  
DOT Hazard Class: 3  
DOT Packing Group: II  
IATA Shipping Name: ISOPROPANOL, MIXTURE  
IATA UN Number: UN1219  
IATA Hazard Class: 3  
IATA Packing Group: II  
IMDG UN Number : UN1219  
IMDG Shipping Name : ISOPROPANOL, MIXTURE  
IMDG Hazard Class : 3  
IMDG Packing Group : II  
ADR UN Number: UN1219  
ADR Shipping Name : ISOPROPANOL, MIXTURE  
ADR Hazard Class: 3  
ADR Packing Group : II  
RID UN Number : UN1219  
RID Shipping Name : ISOPROPANOL, MIXTURE  
RID Hazard Class : 3  
RID Packing Group : II  
ICAO UN Number : UN1219  
ICAO Shipping Name: ISOPROPANOL, MIXTURE  
ICAO Hazard Class : 3  
ICAO Packing Group : II

#### IMDG

UN Number:  
Class:  
Packing Group:  
EMS Number:  
Proper Shipping Name:

#### IATA

UN Number:  
Class:  
Packing Group:  
Proper Shipping Name:

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### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations specific for the product in question

##### Canada Reg. Status

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

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### Canada WHMIS

Controlled - Class: B2 Flammable Liquid

Controlled - Class: D2B Toxic

### SARA

This product does not contain any chemicals which are listed in the SARA Title III Extremely Hazardous Substances (EHS)

### HMIS Rating

Health 1

Flammability 3

Physical hazard

Personal protection B

### NFPA Rating

Health hazard 1

Fire hazard 3

Reactivity hazard 0

Special hazard

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## SECTION 16: Other information

### 16.1 Further information/disclaimer

The information contained herein is based on data considered accurate and is offered solely for information, consideration and investigation. Metron extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The data on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

### 16.2 Preparation information

SDS Creation 1/2020

SDS Revised 1/2022

SDS Revised 1/2024

SDS Revised 1/2026