# SIGMA-ALDRICH

## **Material Safety Data Sheet**

Version 4.2 Revision Date 11/22/2012 Print Date 04/23/2013

1. PRODUCT AND COMPANY IDENTIFICATION						
Product name	:	Methyl Orange				
Product Number Brand	:	114510 Sigma-Aldrich				
Supplier	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA				
Telephone	:	+1 800-325-5832				
Fax	:	+1 800-325-5052				
Emergency Phone # (For both supplier and manufacturer)	:	(314) 776-6555				
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956				

## 2. HAZARDS IDENTIFICATION

## **Emergency Overview**

## **OSHA Hazards**

Toxic by ingestion

## **GHS Classification** Acute toxicity, Oral (Category 3)

## GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s) H301	Toxic if swallowed.
Precautionary statement(s) P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
HMIS Classification Health hazard: Flammability: Physical hazards:	2 0 0
NFPA Rating Health hazard: Fire: Reactivity Hazard:	2 0 0
Potential Health Effects	
Inhalation Skin Eyes Ingestion	May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if absorbed through skin. May cause skin irritation. May cause eye irritation. Toxic if swallowed.

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Synonyms	:	4-[4-(Dimethylamino)phenylazo]benzenesulfonic acid sodium salt Acid Orange 52 Helianthin Orange III		
Formula	:	C <sub>14</sub> H <sub>14</sub> N <sub>3</sub> NaO <sub>3</sub> S		
Molecular Weight	:	327.33 g/mol		
Component			Concentration	
Sodium 4-(4-dimethylaminophenylazo)benzenesulphonate				
CAS-No.		547-58-0	-	
EC-No.		208-925-3		

## **4. FIRST AID MEASURES**

## **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

#### lf 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. Take victim immediately to hospital. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## **5. FIREFIGHTING MEASURES**

## Suitable extinguishing media

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

## Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Sodium oxides

## 6. ACCIDENTAL RELEASE MEASURES

## **Personal precautions**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

## **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

## 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. Normal measures for preventive fire protection.

#### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

#### Personal protective equipment

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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).

#### Hand 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.

#### Eye 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 and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form	powder, crystalline
Colour	orange
Safety data	
рН	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
411:1 444540	

## **10. STABILITY AND REACTIVITY**

#### **Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions** no data available

Conditions to avoid no data available

Materials to avoid Strong oxidizing agents

#### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Sodium oxides Other decomposition products - no data available

## **11. TOXICOLOGICAL INFORMATION**

#### Acute toxicity

Oral LD50 LD50 Oral - rat - 60 mg/kg

Inhalation LC50 no data available

Dermal LD50 no data available

Other information on acute toxicity no data available

Skin corrosion/irritation no data available

Serious eye damage/eye irritation no data available

**Respiratory or skin sensitization** no data available

#### Germ cell mutagenicity

Genotoxicity in vitro - Histidine reversion (Ames)

Genotoxicity in vitro - mouse - Embryo Morphological transformation.

Genotoxicity in vitro - Human - fibroblast Unscheduled DNA synthesis

#### Carcinogenicity

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

#### **Reproductive toxicity**

no data available

#### Teratogenicity

no data available

## Specific target organ toxicity - single exposure (Globally Harmonized System) no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System) no data available

Aspiration hazard no data available

#### Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

## Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

#### Synergistic effects no data available

#### Additional Information RTECS: DB6327000

## **12. ECOLOGICAL INFORMATION**

#### **Toxicity**

no data available

#### Persistence and degradability no data available

## **Bioaccumulative potential**

no data available

#### Mobility in soil no data available

## PBT and vPvB assessment

no data available

## Other adverse effects

no data available

## **13. DISPOSAL CONSIDERATIONS**

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

## Contaminated packaging

Dispose of as unused product.

## **14. TRANSPORT INFORMATION**

## DOT (US)

UN number: 3143 Class: 6.1 Packing group: III Proper shipping name: Dyes, solid, toxic, n.o.s. (Sodium 4-(4-dimethylaminophenylazo)benzenesulphonate) Marine pollutant: No Poison Inhalation Hazard: No

## IMDG

UN number: 3143 Class: 6.1 Packing group: III EMS-No: F-A, S-A Proper shipping name: DYE, SOLID, TOXIC, N.O.S. (Sodium 4-(4-dimethylaminophenylazo)benzenesulphonate) Marine pollutant: No

## IATA

UN number: 3143 Class: 6.1 Packing group: III Proper shipping name: Dye, solid, toxic, n.o.s. (Sodium 4-(4-dimethylaminophenylazo)benzenesulphonate)

## **15. REGULATORY INFORMATION**

## **OSHA Hazards**

Toxic by ingestion

#### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards

Acute Health Hazard

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components		
	CAS-No.	Revision Date
Sodium 4-(4-dimethylaminophenylazo)benzenesulphonate	547-58-0	
New Jersey Right To Know Components		
	CAS-No.	Revision Date
Sodium 4-(4-dimethylaminophenylazo)benzenesulphonate	547-58-0	

#### 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.

## **16. OTHER INFORMATION**

## **Further information**

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