

MSDS Number: **M5918** \* \* \* \* \* *Effective Date: 02/26/07* \* \* \* \* \* *Supersedes:*  
*08/10/04*



**Material Safety Data Sheet**

From: Mallinckrodt Baker, Inc.  
222 Red School Lane  
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
CANUTEC: 613-996-6666

Outside U.S. And Canada  
Chemtrec: 703-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

# Methyl Orange, Sodium Salt

## 1. Product Identification

**Synonyms:** C.I.13025; (p-[[p-(Dimethylamino)phenyl]azo]benzenesulfonic Acid,Sodium Salt)

**CAS No.:** 547-58-0

**Molecular Weight:** 327.34

**Chemical Formula:** 4-(CH<sub>3</sub>)<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>N:NC<sub>6</sub>H<sub>4</sub>-4-SO<sub>3</sub>Na

**Product Codes:** 2694

## 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Hazardous		
-----	-----	-----
-----		
C.I. Acid Orange 52	547-58-0	90 - 100%
Yes		

### 3. Hazards Identification

#### Emergency Overview

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**WARNING! HARMFUL IF SWALLOWED. CAUSES IRRITATION TO SKIN AND EYES. MAY CAUSE RESPIRATORY TRACT IRRITATION.**

**SAF-T-DATA<sup>(tm)</sup>** Ratings (Provided here for your convenience)

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Health Rating: 2 - Moderate (Poison)  
Flammability Rating: 1 - Slight  
Reactivity Rating: 1 - Slight  
Contact Rating: 1 - Slight  
Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES  
Storage Color Code: Blue (Health)

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#### Potential Health Effects

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**Inhalation:**

May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath.

**Ingestion:**

Toxic. Harmful if swallowed. May cause irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

**Skin Contact:**

Mild irritant, may cause local redness.

**Eye Contact:**

Causes mild irritation, possible reddening.

**Chronic Exposure:**

No information found.

**Aggravation of Pre-existing Conditions:**

No information found.

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### 4. First Aid Measures

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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## 5. Fire Fighting Measures

**Fire:**

May pose a slight fire hazard when exposed to heat or flame.

**Explosion:**

Not considered to be an explosion hazard.

**Fire Extinguishing Media:**

Use any means suitable for extinguishing surrounding fire. Water or foam may cause frothing.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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## 6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

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## 7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from oxidizing materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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## 8. Exposure Controls/Personal Protection

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Skin Protection:**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

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## 9. Physical and Chemical Properties

**Appearance:**

Orange-yellow powder.

**Odor:**

Odorless.

**Solubility:**

Soluble in 500 parts water.

**Specific Gravity:**

1.00

**pH:**

No information found.

**% Volatiles by volume @ 21C (70F):**

0

**Boiling Point:**

No information found.

**Melting Point:**

No information found.

**Vapor Density (Air=1):**

No information found.

**Vapor Pressure (mm Hg):**

Not applicable.

**Evaporation Rate (BuAc=1):**

No information found.

## 10. Stability and Reactivity

**Stability:**

Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:**

May form carbon oxides, nitrogen oxides, and sulfur oxides when heated to decomposition.

**Hazardous Polymerization:**

Will not occur.

**Incompatibilities:**

Strong oxidizing agents.

**Conditions to Avoid:**

Heat, flames, ignition sources and incompatibles.

## 11. Toxicological Information

Oral rat LD50: 60 mg/kg; investigated as a mutagen.

-----\Cancer Lists\-----			
Ingredient Category	---NTP Carcinogen---		IARC
	Known	Anticipated	
C.I. Acid Orange 52 (547-58-0)	No	No	
None			

## 12. Ecological Information

**Environmental Fate:**

When released into the soil, this material may leach into groundwater.

When released into water, this material is not expected to evaporate

significantly. This material has an estimated bioconcentration factor (BCF) of less than 100. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

**Environmental Toxicity:**

No information found.

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## 13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14. Transport Information

**Domestic (Land, D.O.T.)**  
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**Proper Shipping Name:** TOXIC SOLID, ORGANIC, N.O.S. (METHYL ORANGE, SODIUM SALT)

**Hazard Class:** 6.1

**UN/NA:** UN2811

Packing Group: III

**Information reported for product/size:** 12KG

**International (Water, I.M.O.)**  
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**Proper Shipping Name:** TOXIC SOLID, ORGANIC, N.O.S. (METHYL ORANGE, SODIUM SALT)

**Hazard Class:** 6.1

**UN/NA:** UN2811

Packing Group: III

**Information reported for product/size:** 12KG

**International (Air, I.C.A.O.)**  
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**Proper Shipping Name:** TOXIC SOLID, ORGANIC, N.O.S. (METHYL ORANGE, SODIUM SALT)

**Hazard Class:** 6.1

**UN/NA:** UN2811

Packing Group: III

**Information reported for product/size:** 12KG

## 15. Regulatory Information

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-----\Chemical Inventory Status - Part 1\-----
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Ingredient                                TSCA  EC   Japan
Australia
-----
C.I. Acid Orange 52 (547-58-0)           Yes  Yes  Yes
Yes

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-----\Chemical Inventory Status - Part 2\-----
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Ingredient                                Korea  --Canada--
Phil.                                     DSL   NDSL
-----
C.I. Acid Orange 52 (547-58-0)           Yes   Yes   No
Yes

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-----\Federal, State & International Regulations - Part 1\-----
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313-----
Ingredient                                -SARA 302-  -----SARA
Chemical Catg.                            RQ      TPQ      List
-----
C.I. Acid Orange 52 (547-58-0)           No      No      No
No

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-----\Federal, State & International Regulations - Part 2\-----
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TSCA-                                     -RCRA-    -
Ingredient                                CERCLA    261.33    8(d)
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C.I. Acid Orange 52 (547-58-0)           No        No        No

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Chemical Weapons Convention: No      TSCA 12(b): No      CDTA: No  
 SARA 311/312: Acute: Yes      Chronic: No      Fire: No      Pressure: No  
 Reactivity: No      (Pure / Solid)

**Australian Hazchem Code: 2(Z)**  
**Poison Schedule: None allocated.**  
**WHMIS:**

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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## 16. Other Information

**NFPA Ratings:** Health: **2** Flammability: **0** Reactivity: **0**

**Label Hazard Warning:**

WARNING! HARMFUL IF SWALLOWED. CAUSES IRRITATION TO SKIN AND EYES. MAY CAUSE RESPIRATORY TRACT IRRITATION.

**Label Precautions:**

Avoid contact with eyes, skin and clothing.  
Wash thoroughly after handling.  
Avoid breathing dust.  
Keep container closed.  
Use only with adequate ventilation.

**Label First Aid:**

If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention. If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

**Product Use:**

Laboratory Reagent.

**Revision Information:**

MSDS Section(s) changed since last revision of document include: 3.

**Disclaimer:**

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