

Safety Data Sheet METHYL ORANGE

SDS no. NFTCJ67T • Version 1.0 • Date of issue: 2024-10-10

SECTION 1: Identification

GHS Product identifier

Product name METHYL ORANGE

Other means of identification

Product Product Code

METHYL ORANGE LR ML052

METHYL ORANGE AR MA052

C.I. 13025, Orange III,

Gold orange,

Helianthine B,

Acid orange 52,

Orange acid 52,

Tropaeolin D,

Sodium p-dimethylaminoazobenzenesulfonate,

p-Dimethylaminoazobenzenesulfonic acid sodium salt,

Methyl orange sodium salt,

Helianthin

Recommended use of the chemical and restrictions on use

Manufacture of dyes (in the textile industry), estimating alkalinity of waters and pH indicator: pH 3.2 (Red) to pH 4.4 (Yellow). Employed for titrating most mineral acids and strong bases, but not for organic acids, analytical chemistry, laboratory reagent (alkali salts).

Additional information: To prepare a solution for use as pH indicator:
-dissolve 0.04 g in 100 ml water; or
-dissolve 0.04 g in 100 ml ethanol (20%).

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

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General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 3

GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H301

Toxic if swallowed

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor/phycsian

P405

Store locked up.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 327.34

Components

Component	CAS no.	Concentration
4-DIMETHYLAMINOAZOBENZENE-4-SULFONIC ACID, SODIUM SALT (EC no.: 208-925-3)	547-58-0	<= 100 % (weight)
CLASSIFICATIONS: Acute toxicity, oral, Cat. 3. HAZARDS: H301 - Toxic if swallowed.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor (at once).

First Aid Facilities: Maintain eyewash fountain in work area.

If inhaled

If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other symptoms appear.

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In case of skin contact	Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the severity.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical attention.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed

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

Indication of immediate medical attention and special treatment needed, if necessary

For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Small fire: Use dry chemical, CO₂ or water spray. If safe to do so, move undamaged containers from fire area.

Large fire: Use water spray, fog or foam - Do not use water jets. Cool containers with flooding quantities of water until well after fire is out.

Avoid getting water inside containers.

Specific hazards arising from the chemical

Hazards from Combustion Products: Sulfoxides, nitrogen oxides, carbon oxides.

Material may burn but not ignite readily. Runoff may pollute waterways. Fire will produce irritating, poisonous and/or corrosive gases.

Special protective actions for fire-fighters

Wear SCBA and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up

Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

Avoid release to the environment.

SECTION 7: Handling and storage

Precautions for safe handling

Use in well ventilated areas away from all ignition sources. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid generation or accumulation of dusts.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry, well-ventilated place away from direct sunlight.

SECTION 8: Exposure controls/personal protection

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Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

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

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Orange powder.
Color	No data available.
Odor	Weak characteristic odour or odourless.
Odor threshold	No data available.
Melting point/freezing point	> 300 °C
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	~6.5 (5 g/l, H ₂ O, 20 °C)
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Partically insoluble. Solubility in Organic Solvents: Practically insoluble in alcohol.
Partition coefficient n-octanol/water (log value)	Log P (o/w/): -0.66
Vapor pressure	No data available.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: ~ 0.2-0.4 (bulk)

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Relative vapor density
Particle characteristics

No data available.
No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

No data available.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous Polymerization: Will not occur.

Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Sulfoxides, nitrogen oxides, carbon oxides.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 60 mg/kg.
Ingestion: Toxic if swallowed.

Inhalation: May cause respiratory tract irritation.

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/irritation

May cause irritation.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available.

Carcinogenicity

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The following applies to azo dyes in general: azo dyes containing a carcinogenic aryl amine component are suspected of possessing a carcinogenic potential. It is therefore recommended that the substance be handled as if it possessed the properties of the basic amine.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

4-DIMETHYLAMINOAZOBENZENE-4-SULFONIC ACID, SODIUM SALT: *TOXICITY:
Oral, rat: LD50 = 60 mg/kg;

*AQTX/TLM96: Not available

*SAX TOXICITY EVALUATION: Not available

*CARCINOGENICITY: Not available

*MUTATION DATA:
mma-sat 1 mg/plate
dns-hmn:fbr 28 mg/L
otr-ham:kdy 25 mg/L

*TERATOGENICITY: Not available

*STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: None
ACGIH: None
NIOSH Criteria Document: None
NFPA Hazard Rating: Health (H): None
Flammability (F): None
Reactivity (R): None

*OTHER TOXICITY DATA:

Status: Reported in EPA TSCA Inventory, 1980

SECTION 12: Ecological information

Other adverse effects

Distribution: log P(o/w): -0.66

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

UN Number: 3143

Class: 6.1

Packing Group: III

Proper Shipping Name: DYE, SOLID, TOXIC, N.O.S. (Contains Sodium 4-(4- dimethylaminophenylazo)benzenesulphonate)

Hazchem emergency action code (EAC)

2X

IMDG

UN Number: 3143

Class: 6.1

Packing Group: III

Proper Shipping Name: DYE, SOLID, TOXIC, N.O.S. (Contains Sodium 4-(4- dimethylaminophenylazo)benzenesulphonate)

IATA

UN Number: 3143

Class: 6.1

Packing Group: III

Proper Shipping Name: DYE, SOLID, TOXIC, N.O.S. (Contains Sodium 4-(4- dimethylaminophenylazo)benzenesulphonate)

SECTION 15: Regulatory information

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

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'

Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.

Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019

Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au

IATA, Dangerous Goods Regulations (DGR)

IMO, International Maritime Dangerous Goods Code (IMDG)