



Safety Data Sheet

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1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name : ECP Limited
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Product Name	Methyl Orange 0.05% Solution
Product Code	32717
CAS No.	547-58-0, 64-17-5

Recommended use : Laboratory Investigations

2: Hazard's identification

2.1. Classification of the substance or mixture.
CLP Classification - Regulation (EC) No 1272/2008

Health hazards

Based on available data, the classification criteria are not met

Environmental hazards

Based on available data, the classification criteria are not met

Physical hazards

Flammable liquids , Category 3 (H226)



Signal word : Warning

Hazard statement(s)

H226 - Flammable liquid and vapor

Precautionary statement(s)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.

Response

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Storage

P405 - Store locked up.

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards - none

3: Composition/information on ingredients

3.1 Mixtures

Methyl orange solution 0.05% contains methylated spirit

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No1272/2008
Methyl alcohol	67-56-1	200-659-6	0.85	Flam. Liq. 2 (H225) Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370)
C.I. Acid orange 52	547-58-0	EEC No. 208-925-3	0.05%	Acute Tox. 3 (H301)
Water	7732-18-5	231-791-2	84.1	-
Ethyl alcohol	64-17-5	200-578-6	15.1	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)

4: First aid measures

4.1. Description of first aid measure

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Ingestion

Do NOT induce vomiting. Get medical attention.

Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.

Self-Protection of the First Aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

4.2. Most important symptoms and effects, both acute and delayed

Difficulty in breathing

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms may be delayed.

5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers

Unsuitable extinguishing media : No information available

5.2. Special hazards arising from the substance or mixture

Flammable. Risk of ignition. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Remove all sources of ignition. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Use spark-proof tools and explosion-proof equipment.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

7: Handling and storage

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use spark-proof tools and explosion-proof equipment. Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in original container. Keep container tightly closed. Store in a dry place.

Protect from moisture.

7.3. Specific end use(s)

Use in Laboratories.

8: Exposure controls/personal protection

8.1 Control parameters

Exposure controls

As there is no exposure control data currently available for this particular mixture. both Ethanol and Methanol standards have been published.

Ethanol - Threshold Limit Value – Time Weighted Average (TLV – TWA) 1,000ppm
1880mg/m³ (As published by The Department of Labour, New Zealand.)

STEL (short term exposure limit) – none allocated.

Carcinogen category – none allocated.

Ethanol - Odour Threshold 350ppm

Methanol - Threshold Limit Value – Time Weighted Average (TLV – TWA) 200ppm
262mg/m³ (As published by The Department of Labour, New Zealand.)

STEL (short term exposure limit) – 250ppm (328mg/m³.)

Carcinogen category – none allocated.

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of processor equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin 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.

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.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or 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.

9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	:	Liquid
Appearance	:	Red - Orange
Odor	:	Alcohol-like
Odor Threshold	:	No data available
Melting Point/Range	:	No data available
Softening Point	:	No data available
Boiling Point/Range	:	No information available
Flammability (liquid)	:	No data available On basis of test data

Flammability (solid,gas)	:	Not applicable Liquid
Explosion Limits	:	No data available
Flash Point	:	37 °C / 98.6 °F Method - No information available
Autoignition Temperature	:	No data available
Decomposition Temperature	:	No data available
pH	:	6.5-8
Viscosity	:	No data available
Water Solubility	:	Soluble
Solubility in other solvents	:	No information available
Partition Coefficient (n-octanol/water)	:	
Component	:	Log Pow
Methyl alcohol	:	-0.74
Ethyl Alcohol	:	-0.32
Vapour pressure	:	No data available
Density / Specific gravity	:	No data available
Bulk Density	:	Not applicable Liquid
Vapour Density	:	No data available (Air = 1.0)
Particle Characteristics	:	Not applicable (liquid)

9.2. Other information

Explosive Properties : Explosive air/vapour mixtures possible.

10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

11: Toxicological information

Product Information No acute toxicity information is available for this product

(a) Acute toxicity;

Oral	Based on available data, the classification criteria are not met
Dermal	Based on available data, the classification criteria are not met
Inhalation	Based on available data, the classification criteria are not met

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LD50 Inhalation
Methyl alcohol	LD50>1187-	LD50 = 17100 mg/kg (LC50 = 128.2 mg/L (

	2769mg/kg(Rat)	Rabbit)	Rat) 4 h
C.I. Acid orange 52	LD50 = 60 mg/kg (Rat)	-	-
Water	-	-	-
Ethyl alcohol	LD50 = 10470 mg/kg OCED 401 (Rat) 3450 mg/kg (Mouse)	-	LC50 = 117-125 mg/l (4h) OECD 403 (rat) 20000 ppm/10H (rat)

- (b) skin corrosion/irritation; No data available
- (c) serious eye damage/irritation; No data available
- (d) respiratory or skin sensitization;
Respiratory No data available
Skin No data available
- (e) germ cell mutagenicity; No data available
- (f) carcinogenicity; No data available
- (g) reproductive toxicity; No data available
- (h) STOT-single exposure; No data available
- (i) STOT-repeated exposure;
Target Organs No data available
No information available.
- (j) aspiration hazard; No data available
Symptoms / effects,both acute and delayed No information available

12: Ecological information

12.1. Toxicity

Ecotoxicity effects

Contains a substance which is Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

12.2. Persistence and degradability

Soluble in water, persistence is unlikely, based on information available.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

The product is water soluble and may spread in water systems . Will likely be mobile in the environment due to its water solubility. Highly mobile in soils.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	1170	1170	1170
14.2	UN Proper Shipping name	Ethanol (Ethyl alcohol)	Ethanol (Ethyl alcohol)	Ethanol (Ethyl alcohol)
14.3	Transport Hazard Class	3	3	3
14.4	Packaging group	III	III	III
14.5	Environmental Hazards	No	no	no
14.6	Special precautions for user	None		

15: Regulatory information

15.1 Safety, health, and environmental regulations/legislation specific for the substance or mixture

National regulatory information

HSNO Approval: HSR002553: Denatured Ethanol Group Standard 2017

HSNO/HSWA Controls: Refer to the above Group Standard, Health and Safety at Work Act 2015, www.epa.govt.nz and www.worksafe.govt.nz for further information on controls

Certified Handler: Not required

Tracking: Not required

Restriction to workplace: Not applicable

16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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