

# MATERIAL SAFETY DATA SHEET

Date issued : 27/11/2024

Revision : 03

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : **CATION DYE**

CHEMICAL DESCRIPTION : CATION DYE FOR RESIN TESTING IN A ETHANOL AND METHANOL MIXTURE

COMPANY : ImproChem (Pty) Ltd T/A AECI Water  
1 Wharhirst Road.  
Umbogintwini.  
Durban , 4126.

EMERGENCY TELEPHONE NUMBER **0800 SPILLS OR 0800 774557**

TELEPHONE NUMBERS +27 11 971 0400 FAX NUMBERS +27 11 394 3436

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Our hazard evaluation has identified the following chemical substance(s) as hazardous.

Hazardous Substance(s)	CAS NO	% (w/w)
Ethanol	64-17-5	60.0 - 100.0
Methanol	67-56-1	5.0 - 10.0

## 3. HAZARDS IDENTIFICATION

### \*\*EMERGENCY OVERVIEW\*\*

#### WARNING

Flammable. Contains methanol. May cause skin and eye irritation. Methanol may cause central nervous system effects or permanent vision damage if inhaled, swallowed or absorbed through the skin in large amounts. Do not get in eyes, on skin, on clothing. Do not take internally. Keep away from heat. Keep away from sources of ignition - No smoking. Use with adequate ventilation. Keep container tightly closed and in a well-ventilated place. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear a face shield. Wear chemical resistant apron, chemical splash goggles, impervious gloves and boots. Flammable Liquid; may release vapors that form flammable mixtures at or above the flash point. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition. May evolve oxides of carbon (CO<sub>x</sub>) under fire conditions.

PRIMARY ROUTES OF EXPOSURE :

Eye, Skin, Inhalation

HUMAN HEALTH HAZARDS - ACUTE :

EYE CONTACT :

May cause irritation with prolonged contact.

SKIN CONTACT :

May cause irritation with prolonged contact. Methanol may be absorbed through the skin and cause central nervous system effects which may result in permanent visual changes including blindness.

INGESTION :

Not a likely route of exposure. Can cause blindness.

INHALATION :

Product mist or vapors may cause headache, nausea, vomiting, drowsiness, stupor or unconsciousness.

SYMPTOMS OF EXPOSURE :

Acute :

A review of available data does not identify any symptoms from exposure not previously mentioned.

Chronic :

A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS :

A review of available data does not identify any worsening of existing conditions.

<b>4.</b>	<b>FIRST AID MEASURES</b>
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EYE CONTACT :

Immediately flush eye with water for at least 15 minutes while holding eyelids open. If symptoms develop, seek medical advice.

SKIN CONTACT :

Immediately flush with plenty of water for at least 15 minutes. For a large splash, flood body under a shower. If symptoms develop, seek medical advice.

INGESTION :

Induce vomiting if the patient is fully conscious. If conscious, washout mouth and give water to drink. Get immediate medical attention.

INHALATION :

Remove to fresh air, treat symptomatically. Get medical attention.

NOTE TO PHYSICIAN :

Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

<b>5.</b>	<b>FIRE FIGHTING MEASURES</b>
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FLASH POINT : Minimum 57 °F / 14 °C ( TCC )

EXTINGUISHING MEDIA :

Alcohol foam, Carbon dioxide, Dry powder, Other extinguishing agent suitable for Class B fires

FIRE AND EXPLOSION HAZARD :

Flammable Liquid; may release vapors that form flammable mixtures at or above the flash point. Empty product containers may contain product residue. Do not pressurize, cut, heat, weld, or expose containers to flame or other sources of ignition. May evolve oxides of carbon (COx) under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING :

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

<b>6.</b>	<b>ACCIDENTAL RELEASE MEASURES</b>
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PERSONAL PRECAUTIONS :

Restrict access to area as appropriate until clean-up operations are complete. Ensure clean-up is conducted by trained personnel only. Ventilate spill area if possible. Do not touch spilled material. Eliminate ignition sources. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Notify appropriate government, occupational health and safety and environmental authorities.

METHODS FOR CLEANING UP :

SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. Wash site of spillage thoroughly with water. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS :

Prevent material from entering sewers or waterways.

<b>7.</b>	<b>HANDLING AND STORAGE</b>
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HANDLING :

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid release of vapors or mists into workplace air. Keep the containers closed when not in use. Do not use in locations where vapor is likely to travel to welding flames or arcs or to other hot surfaces. Vapors are much heavier than air, this can result in uneven distribution. Have emergency equipment (for fires, spills, leaks, etc.) readily available.

**STORAGE CONDITIONS :**

Store away from heat and sources of ignition. Connections must be grounded to avoid electrical charges. Store the containers tightly closed. Store separately from oxidizers. Store in suitable labelled containers.

<b>8.</b>	<b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b>
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**OCCUPATIONAL EXPOSURE LIMITS :**

Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

**ACGIH/TLV :**

Substance(s)

Methanol	TWA: 200 ppm , 262 mg/m <sup>3</sup> (Skin) STEL: 250 ppm , 328 mg/m <sup>3</sup> (Skin)
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Ethanol	TWA: 1,000 ppm , 1,880 mg/m <sup>3</sup>
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**OSHA/PEL :**

Substance(s)

Methanol	TWA: 200 ppm , 260 mg/m <sup>3</sup> (Skin) STEL: 250 ppm , 325 mg/m <sup>3</sup> (Skin)
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Ethanol	TWA: 1,000 ppm , 1,900 mg/m <sup>3</sup>
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\* A skin notation refers to the potential significant contribution to overall exposure by the cutaneous route, including mucous membranes and the eyes.

**ENGINEERING MEASURES :**

Use general ventilation with local exhaust ventilation.

**RESPIRATORY PROTECTION :**

If significant mists, vapors or aerosols are generated an approved respirator is recommended. An organic vapor cartridge with dust/mist prefilter may be used. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

**HAND PROTECTION :**

Nitrile gloves, Viton# gloves, Polyvinyl alcohol gloves

**SKIN PROTECTION :**

Wear standard protective clothing.

**EYE PROTECTION :**

Wear chemical splash goggles.

**HYGIENE RECOMMENDATIONS :**

Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse.

Based on our recommended product application and personal protective equipment, the potential human exposure is: Low

<b>9.</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>
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PHYSICAL STATE            Liquid

APPEARANCE                Orange

ODOR                         Alcoholic

SOLUBILITY IN WATER            Complete

<b>10.</b>	<b>STABILITY AND REACTIVITY</b>
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**STABILITY :**

Stable under normal conditions.

**HAZARDOUS POLYMERIZATION :**

Hazardous polymerization will not occur.

**CONDITIONS TO AVOID :**

Heat and sources of ignition including static discharges.

**MATERIALS TO AVOID :**

Contact with strong oxidizers (e.g. chlorine, peroxides, chromates, nitric acid, perchlorate, concentrated oxygen, permanganate) may generate heat, fires, explosions and/or toxic vapors.

**HAZARDOUS DECOMPOSITION PRODUCTS :**

Under fire conditions:            Oxides of carbon

<b>11.</b>	<b>TOXICOLOGICAL INFORMATION</b>
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The following results are for the hazardous components.

ACUTE ORAL TOXICITY :

Species	LD50	Tested Substance
Rat	7,060 mg/kg	Ethanol
Rating : Non-Hazardous		

CARCINOGENICITY :

None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), or the American Conference of Governmental Industrial Hygienists (ACGIH).

Based on our hazard characterization, the potential human hazard is: High

<b>12.</b>	<b>ECOLOGICAL INFORMATION</b>
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ECOTOXICOLOGICAL EFFECTS :

No toxicity studies have been conducted on this product.

Based on our hazard characterization, the potential environmental hazard is: Moderate

<b>13.</b>	<b>DISPOSAL CONSIDERATIONS</b>
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If this product becomes a waste it meets the criteria of a hazardous. Hazardous wastes must be transported by a licensed hazardous waste transporter and disposed of or treated in a properly licensed hazardous waste treatment, storage, disposal or recycling facility. Consult local, state, and federal regulations for specific requirements.

<b>14.</b>	<b>TRANSPORT INFORMATION</b>
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LAND TRANSPORT :

Proper Shipping Name :	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Technical Name(s) :	ETHANOL, METHANOL
UN/ID No :	UN 1986
Hazard Class - Primary :	3
Hazard Class - Secondary :	6.1
Packing Group :	II
Flash Point :	Minimum 14 °C / 57 °F

AIR TRANSPORT (ICAO/IATA) :

Proper Shipping Name :	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Technical Name(s) :	ETHANOL, METHANOL
UN/ID No :	UN 1986
Hazard Class - Primary :	3

Hazard Class - Secondary : 6.1  
Packing Group : II  
IATA Cargo Packing Instructions : 307  
IATA Cargo Aircraft Limit : 60 L (Max net quantity per package)

MARINE TRANSPORT (IMDG/IMO) :

Proper Shipping Name : ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.  
Technical Name(s) : ETHANOL, METHANOL  
UN/ID No : UN 1986  
Hazard Class - Primary : 3.2  
Hazard Class - Secondary : 6.1  
Packing Group : II

<b>15.</b>	<b>REGULATORY INFORMATION</b>
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NATIONAL REGULATIONS, USA :

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200 :

Based on our hazard evaluation, the following substance(s) in this product is/are hazardous and the reason(s) is/are shown below.

Ethanol : Flammable

Methanol : Flammable, Target Organ Effect - Eye

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313 :

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355) :

This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370) :

Our hazard evaluation has found this product to be hazardous.

- X Immediate (Acute) Health Hazard
- Delayed (Chronic) Health Hazard
- X Fire Hazard
- Sudden Release of Pressure Hazard
- Reactive Hazard

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :

This product contains the following substance(s), (with CAS # and % range) which appear(s) on the List of Toxic Chemicals

<u>Hazardous Substance(s)</u>	<u>CAS NO</u>	<u>% (w/w)</u>
Methanol	67-56-1	5.0 - 10.0

**TOXIC SUBSTANCES CONTROL ACT (TSCA) :**

The chemical substances in this product are on the TSCA 8(b) Inventory (40 CFR 710) or are sold commercially under the polymer exemption (40 CFR 723.250).

**FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR / formerly Sec. 311 :**

None of the substances are specifically listed in the regulation.

**CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :**

This product contains the following substances listed in the regulation:

<u>Substance(s)</u>	<u>Citations</u>
Methanol :	Sec. 111, Sec. 112
Ethanol :	Sec. 111

**CALIFORNIA PROPOSITION 65 :**

This product does not contain substances which require warning under California Proposition 65.

<b>16. OTHER INFORMATION</b>
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