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## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

PRODUCT NAME           ACRIDINE ORANGE (in McIlvaine-Lillie's Buffer)

PRODUCT CODE           62054x

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## 2. HAZARDS IDENTIFICATION

CLASSIFICATION ACCORDING TO REGULATION (EC) No 1272/2008 [EU-GHS/CLP]

Specific target organ toxicity - single exposure (Category 2)     R371

LABELLING ACCORDING TO REGULATION (EC) No 1272/2008 [EU-GHS/CLP]

WARNING



Hazard statement(s)

H371            May cause damage to organs

Precautionary statement(s)

P309+311       IF exposed or you feel unwell: Call a POISON CENTER or  
                  doctor/physician

***CONTINUED OVERLEAF***

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	EC #	CAS #	Content	Classification
METHANOL	200-659-6	67-56-1	1-3%	Flam. Liq. 2; Acute Tox. 3; STOT SE 1 H225 H301 H311 H331 H370
CITRIC ACID	201-069-1	77-92-9	<1%	Eye Irrit. 2A H319
ACRIDINE ORANGE [CI 46005]	233-353-6	10127-02-3	<1%	Muta. 2 H341
3,6-Bis(dimethylamino)acridinium chloride hemi(zinc chloride salt)				
CHLORHEXIDINE GLUCONATE	242-354-0	18472-51-0	0-0.1%	Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; STOT SE 3; Aquatc Acute 1; Aquatic Chronic 1 H315 H319 H334 H335 H410
DISODIUM HYDROGEN ORTHOPHOSPHATE	231-448-7	7558-79-4	<1%	

### 4. FIRST-AID MEASURES

#### INHALATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

#### INGESTION

Do not induce vomiting. Never make an unconscious person vomit or drink fluids. Get medical attention immediately. Show the label or this document to the physician.

#### SKIN CONTACT

Remove contaminated clothes and rinse skin thoroughly with water. If symptoms occur seek medical attention.

#### EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eyelids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

### 5. FIRE-FIGHTING MEASURES

#### EXTINGUISHING MEDIA

Use: Dry chemical, Alcohol-resistant foam, Water spray, or Carbon dioxide.

#### PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this SDS. Evacuate personnel from the affected area.

### ENVIRONMENTAL PRECAUTIONS

Do not allow spillage to enter watercourses, drains or sewers.

### SPILL CLEAN-UP METHODS

Provide ventilation and confine spill. Do not allow runoff to sewer. Inform Authorities if large amounts are involved. Absorb with vermiculite, dry sand or earth. Shovel up residue and collect for authorised disposal (see section 13). Flush area with plenty of water.

## 7. HANDLING & STORAGE

### USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Provide adequate exhaust function where aerosols are likely.

### STORAGE PRECAUTIONS

Store in tightly closed original container in a cool, dry well-ventilated place.

### STORAGE CLASS

Chemical storage.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std	8h TWA		STEL	
METHANOL	WEL (skin)	200 ppm	260 mg/m <sup>3</sup>	250 ppm	333 mg/m <sup>3</sup>

*WEL – Workplace Exposure Limit; 8h TWA – 8-hour Time-Weighted Average; STEL – Short-Term EL.*

### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation. Provide explosion-proof ventilation for high concentrations.

### PROTECTIVE EQUIPMENT



### HAND PROTECTION

Use protective gloves made of: Butyl rubber (immersion protection) or Nitrile rubber (splash protection). The most suitable glove should be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

### EYE PROTECTION

Wear approved, tight-fitting safety glasses where splashing is probable.

## RESPIRATORY EQUIPMENT

Self-contained breathing apparatus where high aerosol levels are likely.

## OTHER PROTECTION

Provide eyewash station.

## HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Orange Liquid
ODOUR	None
(SOLUBILITY) / MISCIBLE WITH:	Water; Ethanol; Ether; Benzene; Organic solvents
MELTING POINT	~ -1 °C
BOILING POINT	~ 99 °C
SPECIFIC GRAVITY	0.99 @ 20 °C

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## 10. STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions and recommended use.

### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Extremes of temperature, direct sunlight.

### INCOMPATIBLE MATERIALS

Strong oxidizers, Acids, Reducing agents, Alkali metals.

Can react vigorously with chloroform in the presence of sodium and sodium hydroxide.

### HAZARDOUS DECOMPOSITION PRODUCTS

During fire, toxic gases (CO, CO<sub>2</sub>) are formed.

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## 11. TOXICOLOGICAL INFORMATION

### SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

Causes damage to organs.

### INHALATION

May be harmful by inhalation. May cause respiratory tract irritation.

### INGESTION

May be harmful if swallowed.

### SKIN CONTACT

May be harmful if absorbed through the skin. May cause skin irritation.

EYE CONTACT

May cause eye irritation.

## 12. ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment. However, the product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters.

## 13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Incinerate in suitable combustion chamber. Dispose of waste and residues in accordance with local authority requirements.

## 14. TRANSPORT INFORMATION

	UN #	Class	Packing	Proper shipping name
<u>RID/ADR</u>	<i>Not regarded as hazardous for transport</i>			
<u>IATA</u>				
<u>IMDG</u>				

## 15. REGULATORY INFORMATION

STATUTORY INSTRUMENTS

This MSDS complies with regulation (EC) no. 1907/2006.  
Workplace Exposure Limits EH40/2011.

## 16. OTHER INFORMATION

GENERAL INFORMATION

This safety data sheet covers all codes for this product.

REVISION INFORMATION

Revision No.	07
Revision Date	09/2015
Comments	CHIP regulations removed
Replaces Document Generated	10/2014

HAZARD STATEMENTS IN FULL

H225	Highly Flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H370	Causes damage to organs
H371	May cause damage to organs
H410	Very toxic to aquatic life with long lasting effects