SAFETY DATA SHEET
Acridine Orange
According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Acridine Orange

Product number PL.8009,PL.8009/4,PL.8009/5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Laboratory reagent.

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier
Pro-Lab Diagnostics
3 Bassendale Road
Wirral
Merseyside
CH62 3QL
Tel: 0151 353 1613
Fax: 0151 353 1614
mowen@pro-lab.com

1.4. Emergency telephone number

Emergency telephone +44 (0)151 353 1613 Monday to Friday 9.00 to 17.00
+44 (0)7714 429 646 outside the above hours

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) ---

2.2. Label elements

Hazard statements NC Not Classified

Supplemental label information EUH210 Safety data sheet available on request.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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Acetic acid		**1 - <2.5%**
CAS number: 64-19-7	EC number: 200-580-7	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Flam. Liq. 3 - H226 Skin Corr. 1A - H314 Eye Dam. 1 - H318	C; R35. R10

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Ingestion Rinse mouth thoroughly with water. Give plenty of water to drink. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Skin contact Wash skin thoroughly with soap and water.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse.

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

Inhalation Irritation of nose, throat and airway.

Ingestion May cause discomfort if swallowed.

Skin contact Prolonged skin contact may cause redness and irritation.

Eye contact May cause temporary eye irritation.

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

Notes for the doctor The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

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6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations.

Advice on general occupational hygiene Avoid contact with eyes and prolonged skin contact.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in a cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

8.2. Exposure controls

Eye/face protection No specific eye protection required during normal use.

Hand protection The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Hygiene measures No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Liquid.

Colour Burnt orange

Odour Almost odourless.

Odour threshold Not determined.

pH Not determined.

Melting point Not relevant.

Initial boiling point and range Not determined.

Flash point Not determined.

Evaporation rate Not determined.

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Evaporation factor	Not determined.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not relevant.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	Not determined.
Bulk density	Not determined.
Solubility(ies)	Soluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	Not relevant.
Decomposition Temperature	Not relevant.
Viscosity	Not determined.
Explosive properties	Not considered to be explosive.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products None at ambient temperatures. Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

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Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Toxicological information on ingredients.

Acetic acid

Skin corrosion/irritation

Animal data Dose: 0.5 ml (3.3 - 10%), 4 hours, Rabbit Primary dermal irritation index: 0.5 - 1.1 REACH dossier information. Skin Corr. 1A - H314 Causes severe skin burns and eye damage.

Serious eye damage/irritation

Serious eye damage/irritation Dose: 0.1 ml, 30 seconds, Rabbit REACH dossier information. Eye Dam. 1 - H318 Causes serious eye damage.

Germ cell mutagenicity

Genotoxicity - in vitro Chromosome aberration: Negative. REACH dossier information.

Reproductive toxicity

Reproductive toxicity - development Developmental toxicity: - NOAEL: 1600 mg/kg/day, Oral, Rat REACH dossier information.

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SECTION 12: Ecological Information

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

Acetic acid

Acute toxicity - fish	NOEC, 96 hours: 1000 mg/l, Onchorhynchus mykiss (Rainbow trout) LC_{50}, 96 hours: > 1000 mg/l, Onchorhynchus mykiss (Rainbow trout) REACH dossier information.
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: > 1000 mg/l, Daphnia magna REACH dossier information.
Acute toxicity - aquatic plants	EC_{50}, 24 hours: 0.08 mg/l, Anabaena flos-aquae EC_{20}, 24 hours: 2.84 mg/l, Anabaena flos-aquae EC_{10}, 24 hours: 9.19 mg/l, Anabaena flos-aquae EC_{50}, 48 hours: 82.07 mg/l, Anabaena flos-aquae EC_{20}, 48 hours: 31.2 mg/l, Anabaena flos-aquae EC_{10}, 48 hours: 22.6 mg/l, Anabaena flos-aquae EC_{50}, 72 hours: 55.22 mg/l, Anabaena flos-aquae EC_{20}, 72 hours: 21.98 mg/l, Anabaena flos-aquae EC_{10}, 72 hours: 16.16 mg/l, Anabaena flos-aquae REACH dossier information.

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

Acetic acid

Phototransformation	Air - DT_{50} : 26.7 days Calculation method. REACH dossier information.
Biodegradation	Soil - Half-life : 2 days Water - Degradation (96%): 20 days REACH dossier information. The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

Acetic acid

Bioaccumulative potential	BCF: 3.16, Fish QSAR model REACH dossier information.
Partition coefficient	log Pow: -0.17 REACH dossier information.

12.4. Mobility in soil

Mobility The product is soluble in water.

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Ecological information on ingredients.

Acetic acid

Henry's law constant 0.21 Pa m³/mol @ 25°C Calculation method. REACH dossier information.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations EH40/2005 Workplace exposure limits.
The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

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EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification procedures according to Regulation (EC) 1272/2008	Not classified.: Calculation method.
Revision comments	Classification according to EC 1272/2008 (CLP).
Revision date	09/04/2015
Revision	4
Supersedes date	01/11/2012
SDS number	763
Risk phrases in full	R10 Flammable. R35 Causes severe burns.
Hazard statements in full	H226 Flammable liquid and vapour. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the users responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.