

DENOVIX, INC.

Safety Data Sheet DeNovix Acridine Orange Dye

SECTION 1: Identification

1.1 GHS Product identifier

Product name DeNovix Acridine Orange Dye

1.3 Recommended use of the chemical and restrictions on use

For research use only

1.4 Supplier's details

Name DeNovix, Inc.
Address 3411 Silverside Road
Hanby Building 101
Wilmington DE 19810
USA

Telephone 302-442-6911

1.5 Emergency phone number

302-442-6911

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: WHMIS 2015

Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Water

Concentration 99.9 % (weight)
EC no. 231-791-2

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CAS no. 7732-18-5

2. Acridine Orange hydrochloride hydrate

Concentration 0.1 % (weight)

EC no. 200-614-0

CAS no. 65-61-2

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 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

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

No data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Carbon oxides

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel). Keep in suitable, closed containers for disposal.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Light sensitive.

SECTION 8: Exposure controls/personal protection

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: Physical and chemical properties

Appearance, such as physical state and colour	Colorless Liquid
Odour	No information available
Odour threshold	No information available
pH	3.0
Melting point and freezing point	0.0°C
Initial boiling point and boiling range	100°C
Flash point	No information available
Evaporation rate	No information available
Flammability, in the case of solids and gases	No information available
Upper and lower flammability or explosive limits	No information available
Vapour pressure	No information available
Vapour density	No information available
Relative density	1.0 (Water)
Solubility	No information available
Partition coefficient — n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Additional properties	
Physical state	Liquid
Colour	Colorless

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Particle characteristics

Not Applicable

Supplemental information regarding physical hazard classes

No information available

Further safety characteristics (supplemental)

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

None under normal use conditions.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Based on available data, classification data are not met

Skin corrosion/irritation

Based on available data, classification data are not met

Serious eye damage/irritation

Based on available data, classification data are not met

Respiratory or skin sensitization

Based on available data, classification data are not met

Germ cell mutagenicity

Based on available data, classification data are not met

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

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Reproductive toxicity

Based on available data, classification data are not met

Specific target organ toxicity (STOT) - single exposure

Based on available data, classification data are not met

Specific target organ toxicity (STOT) - repeated exposure

Based on available data, classification data are not met

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

FISH Mortality LC50 - Oncorhynchus mykiss (rainbow trout) - 520 mg/l - 96 h Method: OECD Test Guideline 203

DAPHINA Immobilization EC50 - Daphnia magna (Water flea) - 77 mg/l - 48 h Method: DIN 38412

TOXICITY TO ALGAE Growth inhibition IC50 - Desmodesmus subspicatus (green algae) - 90 mg/l - 72 h Method: OECD Test Guideline 201

TOXICITY TO BACTERIA Growth inhibition IC50 - Pseudomonas putida - 120 mg/l - 72

Persistence and degradability

Readily Biodegradable

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

No data available

Endocrine disrupting properties

No data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Products covered by this SDS, in their original form, when disposed as waste, are considered non hazardous waste. Disposal should be in accordance with local, state and federal regulations. Dispose of empty container in the trash or recycle where facilities exist.

Packaging disposal

Dispose of as unused product.

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SECTION 14: Transport information

14.1 UN Number	None
14.2 UN Proper Shipping Name	None
14.3 Transport hazard class(es)	None
14.4 Packing group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to IMO instruments	None

SECTION 15: Regulatory information

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

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Domestic Substances List (DSL)

Chemical name: Water

CAS: 7732-18-5

Chemical name: 3,6-Acridinediamine, N,N,N',N'-tetramethyl-, monohydrochloride

CAS: 65-61-2

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

Water

CAS-No. 7732-18-5

Pennsylvania Right To Know Components

Water

CAS-No. 7732-18-5

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards

No SARA Hazards

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SECTION 16: Other information

16.2 Preparation information

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the

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product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. DeNovix Inc. shall not be held liable for any damage resulting from handling or from contact with the above product