



SAFETY DATA SHEET

Version 8.3
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SECTION 1: Identification of the substance/ mixture and of the company/ undertaking

1.1 Product identifiers

Product name : o-Toluidine GR for analysis

Product Number : 1.08310

Catalogue No. : 108310

Brand : Millipore

CAS-No. : 95-53-4

1.2 Other means of identification

No data available

1.3 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Intermediate for use under strictly controlled conditions,
Reagent for analysis, Chemical production

1.4 Details of the supplier of the safety data sheet

Company : MIT-IVY INDUSTRY CO.,LTD
Chemical Industry Park, 69 Guozhuang Road, Yunlong
District, Xuzhou City, Jiangsu Province, China 221100

Telephone : +86-13805212761

Fax : +86-0516-83769139

E-mail address : info@mit-ivy.com

1.5 Emergency telephone

Emergency Phone # : 86-13805212761

SECTION 2: Hazards identification

2.1 GHS Classification

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Serious eye damage/eye irritation (Category 2A), H319

Carcinogenicity (Category 1B), H350

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statement(s)

H301 + H331 Toxic if swallowed or if inhaled.
 H319 Causes serious eye irritation.
 H350 May cause cancer.
 H400 Very toxic to aquatic life.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)**Prevention**

P201 Obtain special instructions before use.
 P261 Avoid breathing mist or vapors.
 P264 Wash skin thoroughly after handling.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
 P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P391 Collect spillage.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards - none**SECTION 3: Composition/ information on ingredients**

Substance / Mixture : Substance

3.1 Substances

Formula : C7H9N
 Molecular weight : 107.16 g/mol
 CAS-No. : 95-53-4
 EC-No. : 202-429-0
 Index-No. : 612-091-00-X

Hazardous ingredients

Component	Classification	Concentration
2-Toluidine	Acute Tox. 3; Eye Dam./Irrit. 2A; Carc. 1B; Aquatic Acute 1; Aquatic Chronic 2; H301, H331, H319, H350, H400, H411 M- Factor - Aquatic Acute : 10	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

4.2 Most important symptoms and effects, both 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 any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NO_x)

Fire may cause evolution of:

nitrous gases

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system .

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10) . Take up carefully with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Recommended storage temperature see product label .

Storage class

Storage class (TRGS 510) : 6. 1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.3 no other specific uses are stipulated.

SECTION 8: Exposure controls/ personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal protective equipment

Eye/ face protection

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

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material : Viton®

Minimum layer thickness: 0.7 mm

Break through time : 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material : butyl-rubber

Minimum layer thickness: 0.7 mm

Break through time : 30 min

Material tested: Butoject® (KCL 898)

Body Protection

protective clothing

Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Stability and reactivity**9.1 Reactivity**

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical .

9.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

9.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable acids

9.4 Conditions to avoid

Air

Strong heating.

9.5 Incompatible materials

various plastics

9.6 Hazardous decomposition products

In the event of fire: see section 5

or vapours with:

SECTION 10: Toxicological information

10.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 750 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male - 4 h - 3.79 mg/l - vapor

(OECD Test Guideline 403)

LD50 Dermal - Rabbit - male - 3,250 mg/kg

Remarks: (ECHA)

Skin corrosion/ irritation

Skin - Rabbit

Result: Irritations - 24 h

(Draize Test)

Serious eye damage/ eye irritation

Eyes - Rabbit

Result: Eye irritation

(Draize Test)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: negative

(OECD Test Guideline 429)

The value is given in analogy to the following substances: p-toluidine

Germ cell mutagenicity

Test Type : sister chromatid exchange assay

Test system : Chinese hamster ovary cells

Metabolic activation : with and without metabolic activation

Result: positive

Remarks: (National Toxicology Program)

Test Type : In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Metabolic activation : with and without metabolic activation

Result: positive

Remarks: (ECHA)

Test Type : In vivo micronucleus test

Species: Rat

Cell type : Bone marrow

Application Route : Intraperitoneal injection

Result: positive

Remarks: (National Toxicology Program)

Carcinogenicity

Presumed to have carcinogenic potential for humans

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

10.2 Additional Information

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., To the best

of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 11: Ecological information

11.1 Toxicity

No data available

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) -
30.9 mg/l - 72 h
(OECD Test Guideline 201)

Toxicity to bacteria Remarks: (ECHA)
(2-Toluidine)

Toxicity to daphnia flow-through test NOEC - Daphnia magna (Water flea) - 0.013 mg/l
and other aquatic - 21 d
invertebrates(Chronic (OECD Test Guideline 211)
toxicity)

11.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d
Result: 88 - 90 % - Readily biodegradable.
(OECD Test Guideline 301A)

11.3 Bioaccumulative potential

Bioaccumulation Cyprinus carpio (Carp) - 28 d
- 0.1 mg/l(2-Toluidine)

Bioconcentration factor (BCF) : < 1.3

11.4 Mobility in soil

No data available

11.5 Results of PBT and vPvB assessment

PBT/ vPvB assessment not available as chemical safety assessment not required/ not conducted

11.6 Endocrine disrupting properties

No data available

11.7 Other adverse effects

Discharge into the environment must be avoided.

SECTION 12: Disposal considerations

12.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 13: Transport information

13.1 UN number

ADR/RID : 1708 IMDG : 1708 IATA-DGR: 1708

13.2 UN proper shipping name

ADR/RID : TOLUIDINES, LIQUID
IMDG : TOLUIDINES, LIQUID
IATA-DGR: Toluidines, liquid

13.3 Transport hazard class(es)

ADR/RID : 6.1 IMDG : 6.1 IATA-DGR: 6.1

13.4 Packaging group

ADR/RID : II IMDG : II IATA-DGR: II

13.5 Environmental hazards

ADR/RID : yes IMDG Marine pollutant: yes IATA-DGR: no

13.6 Special precautions for user

None

13.7 Incompatible materials

various plastics

Other regulations

Hazchem Code : •3X

SECTION 14: Regulatory information

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

SECTION 15: Other information

- Full text of H-Statements referred to under sections 2 and 3.

H301	Toxic if swallowed.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H350	May cause cancer.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Further information

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 product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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