

According to the UN GHS revision 8

Creation Date: June 01, 2026

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1. IDENTIFICATION

1.1 GHS Product identifier

Product name: OR015002

Catalog Number: TD1004

CAS Number: 121-87-9

1.2 Other means of identification

Other names: -

1.3 Recommended use of the chemical and restrictions on use

Identified uses: no data available

1.4 Supplier's details

Company: Targetmol Chemicals Inc.

Address: 34 Washington Street, Wellesley Hills, Massachusetts 02481 USA

Tel/Fax: (781) 999-4286

1.5 Emergency phone number

Emergency phone number: 781-999-4286

Service hours: Monday to Friday, 9am-5pm (Standard timezone: UTC/GMT -5 hours).

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

no data available

2.2 GHS label elements, including precautionary statements

Pictogram(s):



Signal word: Warning

Hazard statement(s):

H302 Harmful if swallowed

H411 Toxic to aquatic life with long lasting effects

Precautionary statement(s):

P264 Wash ... thoroughly after handling.

Prevention:

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P301+P317 IF SWALLOWED: Get medical help.

Response:

P330 Rinse mouth.

P391 Collect spillage.

Storage: none

Disposal: P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number
OR015002	-	121-87-9	-

4. FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

General advice

no data available

If inhaled

Fresh air, rest. Refer for medical attention. See Notes.

Following skin contact

Rinse skin with plenty of water or shower.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rest. Refer for medical attention . See Notes.

4.2 Most important symptoms/effects, acute and delayed

IN ALL CASES CONSULT A DOCTOR. INHALATION: Symptoms: Blue skin. Blue lips or finger nails. Dizziness. Headache. Nausea. Shortness of breath. Confusion. Convulsions. Unconsciousness. Symptoms may be delayed. First aid: Fresh air, rest. Refer for medical attention. SKIN: Symptoms: Redness. First aid: Remove contaminated clothes. Rinse skin with plenty of water or shower. EYES: Symptoms: Redness. Pain. First aid: First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor. INGESTION: Symptoms: Blue skin. Blue lips or finger nails. Dizziness. Headache. Nausea. Shortness of breath. Confusion. Convulsions. Unconsciousness. Symptoms may be delayed. First aid: Rest. Refer for medical attention.

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

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Powder, alcohol-resistant foam, water spray, carbon dioxide.

5.2 Specific hazards arising from the chemical

Excerpt from ERG Guide 153 [Substances - Toxic and/or Corrosive (Combustible)]: Combustible material: may burn but does not ignite readily. When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards. Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Runoff may pollute waterways. Substance may be transported in a molten form. (ERG, 2016)

5.3 Special protective actions for fire-fighters

Use water spray, powder, alcohol-resistant foam, carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal protection: P2 filter respirator for harmful particles. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

6.2 Environmental precautions

Personal protection: P2 filter respirator for harmful particles. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

6.3 Methods and materials for containment and cleaning up

Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. (Extra personal protection: P2 filter respirator for harmful particles). Do NOT let this chemical enter the environment.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Separated from food and feedstuffs.

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

no data available

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Color	no data available
Odour	no data available
Melting point/freezing point	$\geq 108 - \leq 112$ °C. Atm. press.:101.3 kPa.
Boiling point or initial boiling point and boiling range	$\geq 297.62 - \leq 320$ °C. Atm. press.:101.3 kPa.
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	205 °C. Atm. press.:101.3 kPa.
Auto-ignition temperature	522°C
Decomposition temperature	no data available

pH	no data available
Kinematic viscosity	no data available
Solubility	DMSO: 50 mg/mL (289.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
N-octanol-water partition coefficient	no data available
Vapour pressure	no data available
Density and/or relative density	no data available
Relative vapour density	no data available
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Decomposes on burning. This produces toxic and corrosive gases including nitrogen oxides.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: LD50 - rat - 6 430 mg/kg bw.

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: LC50 - Pimephales promelas - 20.4 mg/L - 96 d.

Toxicity to daphnia and other aquatic invertebrates: EC50 Daphnia magna (/water flea/) 10-18 mg/L/48 hr; immobilization.

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2 Persistence and degradability

AEROBIC: The biodegradability of 2-chloro-4-nitroaniline was measured using both the semistatic OECD test and the dynamic system, Pitter test. 2-Chloro-4-nitroaniline is considered non-biodegradable (half-life of much greater than 4 weeks) using both non-adapted and adapted inoculum for both tests(1). Using a modification of the Pitter test where the first step is an acclimation of a mixed microbial population to 2-chloro-4-nitroaniline (at 25 mg/L) in a semi-continuous activated sludge system followed by a die-away test in closed flasks, only a slight amount of degradation occurred. The initial inoculum was a 1:1 mixture of activated sludge from a domestic sewage plant and a solution containing organic material extracted from river mud. In the semi-continuous activated sludge system, 80% of the added 2-chloro-4-nitroaniline was still present after 17 days using both the mixed inoculum and an activated sewage sludge(2). 2-Chloro-4-nitroaniline is regarded as non-biodegradable in the aquatic environment as well as in communal and industrial sewage treatment plants(2).

12.3 Bioaccumulative potential

An estimated BCF of 9 was calculated in fish for 2-chloro-4-nitroaniline(SRC), using a log Kow of 2.14(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low (SRC).

12.4 Mobility in soil

The Koc of 2-chloro-4-nitroaniline is estimated as 350(SRC), using a log Kow of 2.14(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that 2-chloro-4-nitroaniline is expected to moderate mobility in soil. However, anilines are expected to bind strongly to humus or organic matter in soils due to the high reactivity of the aromatic amino group (4,5), suggesting that mobility may be much lower in some soils(SRC). The log Koc of 2-chloro-4-nitroaniline was measured as 2.36 in Yangtze river sediment (37.1% sand, 49.3% silt, 13.6% clay, 1.28% organic carbon, pH 7.44)(1). The log Koc was also measured as 3.63 in modified clay(6). These values correspond to Koc values of 230 and 4300, respectively(SRC).

12.5 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. TRANSPORT INFORMATION

14.1 UN Number

no data available

14.2 UN Proper Shipping Name

A DRUG SCREENING EXPERT

no data available

14.3 Transport hazard class(es)

no data available

14.4 Packing group, if applicable

no data available

14.5 Environmental hazards

no data available

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

15. REGULATORY INFORMATION

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

16. OTHER INFORMATION

Information on revision

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

no data available

Other Information

no data available

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