



## Material Safety Data Sheet

4,6-Dinitro-o-cresol, 98%, contains about 10% water

MSDS# 14711

### Section 1 - Chemical Product and Company Identification

MSDS Name: 4,6-Dinitro-o-cresol, 98%, contains about 10% water  
Catalog Numbers: AC188600000, AC188600010, AC188601000, AC188602500  
Synonyms: DNOC; 2-Methyl-4,6-dinitrophenol.

Company Identification: Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium

Company Identification: (USA) Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number US: 201-796-7100

CHEMTREC Phone Number, US: 800-424-9300

CHEMTREC Phone Number, Europe: 703-527-3887

### Section 2 - Composition, Information on Ingredients

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CAS#: 534-52-1  
Chemical Name: 4,6-Dinitro-o-cresol  
%: 98  
EINECS#: 208-601-1  
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Hazard Symbols:



T+ N



Risk Phrases:

26/27/28 38 41 43 44 50/53 68

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Danger! Causes skin irritation. May cause allergic skin reaction. Causes eye irritation and possible injury. May be fatal if inhaled, absorbed through the skin or swallowed. Danger of cumulative effects. Risk of explosion if heated under confinement. Target Organs: Central nervous system, respiratory system, gastrointestinal system, cardiovascular system.

#### Potential Health Effects

Eye: Causes eye irritation and possible injury.

Skin: Causes skin irritation. May be fatal if absorbed through the skin. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause skin discoloration.

Ingestion: May be fatal if swallowed. Human fatalities have been reported from acute poisoning.

Inhalation: May be fatal if inhaled. May cause respiratory tract irritation. May cause effects similar to those described for ingestion.

Chronic: Repeated exposure may cause metabolic disturbances. There is a danger of cumulative effects. Possible risk of irreversible effects.

#### Section 4 - First Aid Measures

Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.
Skin:	POISON material. In case of contact, get medical aid immediately. Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.
Ingestion:	POISON material. If swallowed, get medical aid immediately. Only induce vomiting if directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Inhalation:	POISON material. If inhaled, get medical aid immediately. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	

#### Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. This material poses an explosion hazard when dry. Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. Combustible material; may burn but does not ignite readily.
Extinguishing Media:	For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray.
Autoignition Temperature:	Not applicable.
Flash Point:	Not applicable.
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
NFPA Rating:	health: 3; flammability: 1; instability: 1;

#### Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

#### Section 7 - Handling and Storage

Handling:	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Use only with adequate ventilation or respiratory protection.
Storage:	Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Poison room locked.

#### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
4,6-Dinitro-o-cresol	0.2 mg/m <sup>3</sup> ; Skin - potential significant contribution to overall exposure by the cutaneous route	0.2 mg/m <sup>3</sup> TWA 5 mg/m <sup>3</sup> IDLH	0.2 mg/m <sup>3</sup> TWA

OSHA Vacated PELs: 4,6-Dinitro-o-cresol: 0.2 mg/m<sup>3</sup> TWA

#### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure

limits.

## Exposure Limits

## Personal Protective Equipment

- Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin: Wear appropriate protective gloves to prevent skin exposure.
- Clothing: Wear appropriate protective clothing to prevent skin exposure.
- Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

Physical State: Powder

Color: yellow

Odor: odorless

pH: Not available

Vapor Pressure: 0.00005 mm Hg @ 20 deg C

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 312 deg C ( 593.60°F)

Freezing/Melting Point: 83-85 deg C

Decomposition Temperature: Not available

Solubility in water: sparingly soluble

Specific Gravity/Density:

Molecular Formula: C7H6N2O5

Molecular Weight: 198.13

## Section 10 - Stability and Reactivity

- Chemical Stability: Stable under normal temperatures and pressures.
- Conditions to Avoid: Dust generation, excess heat, heating in a confined space.
- Incompatibilities with Other Materials: Metals, strong oxidizing agents.
- Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon monoxide, carbon dioxide.
- Hazardous Polymerization: Has not been reported.

## Section 11 - Toxicological Information

- RTECS#: CAS# 534-52-1: GO9625000
- RTECS: **CAS# 534-52-1:** Draize test, rabbit, eye: 20 mg/24H Moderate;  
Draize test, rabbit, skin: 105 mg/9D (Intermittent) Mild;  
Oral, mouse: LD50 = 21 mg/kg;
- LD50/LC50: Oral, rabbit: LD50 = 24600 ug/kg;  
Oral, rat: LD50 = 7 mg/kg;  
Oral, rat: LD50 = 40 mg/kg;  
Skin, rabbit: LD50 = 1 gm/kg;  
Skin, rat: LD50 = 200 mg/kg;
- Carcinogenicity: 4,6-Dinitro-o-cresol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
- Other: See actual entry in RTECS for complete information.

## Section 12 - Ecological Information

- Ecotoxicity: Fish: Fathead Minnow: 1.54mg/L; 96H; Flow-through  
Fish: Bluegill/Sunfish: 360ug/L; 96H; Static  
Fish: Rainbow trout: 66ug/L; 96H; Static

## Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: DINITRO-O-CRESOL

Hazard Class: 6.1

UN Number: UN1598

Packing Group: II

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

USA RQ: CAS# 534-52-1: 10 lb final RQ; 4.54 kg final RQ

#### Section 15 - Regulatory Information

##### European/International Regulations

###### European Labeling in Accordance with EC Directives

Hazard Symbols: T+ N

Risk Phrases:

R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

R 38 Irritating to skin.

R 41 Risk of serious damage to eyes.

R 43 May cause sensitization by skin contact.

R 44 Risk of explosion if heated under confinement.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 68 Possible risk of irreversible effects.

Safety Phrases:

S 36/37 Wear suitable protective clothing and gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

##### WGK (Water Danger/Protection)

CAS# 534-52-1: Not available

##### Canada

CAS# 534-52-1 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1A, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 534-52-1 is listed on Canada's Ingredient Disclosure List

##### US Federal

###### TSCA

CAS# 534-52-1 is listed on the TSCA

Inventory.

#### Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #10 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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