

# Material Safety Data Sheet

## 4-Nitrobenzyl chloride, 99%

ACC# 97075

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** 4-Nitrobenzyl chloride, 99%

**Catalog Numbers:** AC161090100, AC161091000

**Synonyms:** alpha-Chloro-p-nitrotoluene; Benzene, 1-(chloromethyl)-4-nitro-; Benzyl chloride, 4-nitro; p-Nitrobenzyl chloride; Toluene, alpha-chloro-p-nitro.

**Company Identification:**

Acros Organics N.V.  
One Reagent Lane  
Fair Lawn, NJ 07410

**For information in North America, call:** 800-ACROS-01

**For emergencies in the US, call CHEMTREC:** 800-424-9300

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
100-14-1	Benzene, 1-(chloromethyl)-4-nitro-	99	202-822-7

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: slightly yellow crystals.

**Danger!** Causes burns by all exposure routes. May be harmful if swallowed.

**Target Organs:** Respiratory system, gastrointestinal system, eyes, skin.

#### Potential Health Effects

**Eye:** Causes eye burns. Lachrymator (substance which increases the flow of tears).

**Skin:** Causes skin burns.

**Ingestion:** Causes gastrointestinal tract burns.

**Inhalation:** Causes respiratory tract irritation.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Notes to Physician:** Treat symptomatically and supportively.

### 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. Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas.

**Extinguishing Media:** DO NOT USE WATER! Use water spray, dry chemical, carbon dioxide, or appropriate foam. In case of fire, use carbon dioxide, dry chemical powder or appropriate foam.

**Flash Point:** Not available.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 0; 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. Cover with sand, dry lime or soda ash and place in a closed container for disposal. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Use only in a chemical fume hood. Wash clothing before reuse. Discard contaminated shoes.

**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Benzene, 1-(chloromethyl)-4-nitro-	none listed	none listed	none listed

**OSHA Vacated PELs:** Benzene, 1-(chloromethyl)-4-nitro-: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear chemical splash goggles.

**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:** Crystals

**Appearance:** slightly yellow

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 70 - 73 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Insoluble.

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C<sub>7</sub>H<sub>6</sub>ClNO<sub>2</sub>

**Molecular Weight:** 171.58

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable, however, may violently decompose at temperatures above 125°C.

**Conditions to Avoid:** Moisture, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, bases, alcohols, amines, steel.

**Hazardous Decomposition Products:** Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide, chloride fumes.

**Hazardous Polymerization:** Has not been reported

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 100-14-1: XS9093000

### LD50/LC50:

**CAS#** 100-14-1:

Oral, rat: LD50 = 1809 mg/kg;

### Carcinogenicity:

**CAS#** 100-14-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** Mutation in Microorganisms: Salmonella typhimurium = 100 ug/plate. DNA repair: Bacillus subtilis = 50 ug/disc. Mutation in microorganisms: Salmonella typhimurium = 5ug/plate. Sister chromatid exchange: Hamster ovary = 100 umol/L.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.	Corrosive Solid, Acidic, Organic, N.O.S. (NITROBENZYL CHLORIDE)
<b>Hazard Class:</b>	8	8
<b>UN Number:</b>	UN3261	UN3261
<b>Packing Group:</b>	II	II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 100-14-1 is listed on the TSCA inventory.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

CAS# 100-14-1: 500 lb TPQ (lower threshold); 10000 lb TPQ (upper threshold)

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 100-14-1 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

##### Hazard Symbols:

C

##### Risk Phrases:

R 22 Harmful if swallowed.

R 34 Causes burns.

##### Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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

#### WGK (Water Danger/Protection)

CAS# 100-14-1: No information available.

#### Canada - DSL/NDSL

CAS# 100-14-1 is listed on Canada's NDSL List.

#### Canada - WHMIS

This product has a WHMIS classification of E.

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.

**Canadian Ingredient Disclosure List**

<b>Section 16 - Additional Information</b>
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**MSDS Creation Date:** 6/10/1999

**Revision #6 Date:** 6/02/2006

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