

Material Safety Data Sheet

4-Nitrobenzoyl chloride, 98%

ACC# 73404

Section 1 - Chemical Product and Company Identification

MSDS Name: 4-Nitrobenzoyl chloride, 98%

Catalog Numbers: AC150430000, AC150430050, AC150431000, AC150432500, AC150435000

Synonyms: p-Nitrobenzoic acid chloride.

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 |
|----------|-------------------------|---------|---------------|
| 122-04-3 | 4-Nitrobenzoyl chloride | 98 | 204-517-4 |

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow flakes.

Danger! Causes eye and skin burns. Causes severe digestive and respiratory tract burns. Moisture sensitive.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

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

Skin: Causes severe skin irritation and burns.

Ingestion: May cause severe and permanent damage to the digestive tract.

Inhalation: Causes chemical burns to the respiratory tract.

Chronic: Chronic exposure may cause effects similar to those of acute exposure.

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: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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. Use of water will produce irritating and toxic vapors of hydrogen chloride. Hydrochloric acid solutions react with most metals, forming flammable hydrogen gas.

Extinguishing Media: Do NOT use water directly on fire. Use carbon dioxide or dry chemical. Do NOT get water inside containers.

Flash Point: 102 deg C (215.60 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Do not expose spill to water.

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. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes.

Storage: Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Store protected from moisture.

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 |
|-------------------------|-------------|-------------|-------------------|
| 4-Nitrobenzoyl chloride | none listed | none listed | none listed |

OSHA Vacated PELs: 4-Nitrobenzoyl chloride: No OSHA Vacated PELs are listed for this chemical.

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: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Flakes

Appearance: yellow

Odor: pungent odor

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: 6.40

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 202-205 deg C @ 105 mm Hg

Freezing/Melting Point: > 71.5 deg C

Decomposition Temperature: Not available.

Solubility: Hydrolysis.

Specific Gravity/Density: Not available.

Molecular Formula: C₇H₄ClNO₃

Molecular Weight: 185.57

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Material hydrolyzes in contact with moisture/water releasing toxic and corrosive fumes of hydrogen chloride and aqueous hydrochloric acid.

Conditions to Avoid: Dust generation, moisture.

Incompatibilities with Other Materials: Alcohols, strong bases, strong oxidizing agents, amines.

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

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 122-04-3: DM6651000

LD50/LC50:

CAS# 122-04-3:

Oral, mouse: LD50 = 3440 mg/kg;

Oral, rabbit: LD50 = 4750 mg/kg;

Oral, rat: LD50 = 5600 mg/kg;

Carcinogenicity:

CAS# 122-04-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: No data available.

Neurotoxicity: No data available.

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 |
|-----------------------|--|--|
| Shipping Name: | CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. | Corrosive Solid, Acidic, Organic, N.O.S. (4-NITROBENZOYL CHLORIDE) |
| Hazard Class: | 8 | 8 |
| UN Number: | UN3261 | UN3261 |
| Packing Group: | II | II |

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 122-04-3 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

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 122-04-3: immediate, reactive.

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# 122-04-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

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 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# 122-04-3: 2

Canada - DSL/NDL

CAS# 122-04-3 is listed on Canada's DSL 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

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| Section 16 - Additional Information |
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MSDS Creation Date: 9/14/1998

Revision #3 Date: 9/30/2004

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