



Material Safety Data Sheet

4-N,N-Diethyl-2-methyl-p-phenylenediamine monohydrochloride, 99+%

MSDS# 20645

Section 1 - Chemical Product and Company Identification

MSDS Name: 4-N,N-Diethyl-2-methyl-p-phenylenediamine monohydrochloride, 99+%

Catalog Numbers: AC407340000, AC407340250, AC407345000

Synonyms: 2-Amino-5-diethylaminotoluene monohydrochloride; Color developing agent; CD-2; 4-Amino-3-methyl-N,N-diethylaniline hydrochloride; 1,4-Benzenediamine, N(sup 4),N(sup 4)-diethyl-2-methyl-, monohydrochloride; Toluene-2,5-diamine, N(sup 5),N(sup 5)-diethyl-, monohydrochloride.

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

CAS#: 2051-79-8

Chemical Name: 4-N,N-Diethyl-2-methyl-p-phenylenediamine monohydrochloride

%: >99

EINECS#: 218-130-3

Hazard Symbols:



Risk Phrases:

T N



25 36 43 50/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye irritation. May cause allergic skin reaction. Harmful if swallowed. Target Organs: Eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts.

Ingestion: Harmful if swallowed.

Inhalation: Dust is irritating to the respiratory tract.

Chronic: Chronic exposure may cause liver damage.

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.

Skin: In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical aid if symptoms occur. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

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 water spray to keep fire-exposed containers cool. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: Use water spray or dry chemical.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid breathing dust.

Storage: Keep container closed when not in use. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
4-N,N-Diethyl-2-methyl-p-phenylenediamine monohydrochloride	none listed	none listed	none listed

OSHA Vacated PELs: 4-N,N-Diethyl-2-methyl-p-phenylenediamine monohydrochloride: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

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.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a

Respirators: 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: Powder

Color: white to off-white

Odor: odorless

pH: 6.0 (aq soln)

Vapor Pressure: Not available

Vapor Density: 7.1 (air=1)

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 260 deg C (dec)

Decomposition Temperature:

Solubility in water: Soluble

Specific Gravity/Density:

Molecular Formula: C₁₁H₁₉CIN₂

Molecular Weight: 214.74

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Dust generation, excess heat.

Incompatibilities with Other Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 2051-79-8: SS9560000

RTECS:

CAS# 2051-79-8: Dermal, guinea pig: LD50 = >1 gm/kg;

LD50/LC50: Oral, rat: LD50 = 200 mg/kg;

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Other:

Carcinogenicity: 4-N,N-Diethyl-2-methyl-p-phenylenediamine monohydrochloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The hazards associated with aniline may be seen in this product.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT

Shipping Name: TOXIC SOLIDS, ORGANIC, N.O.S.

Hazard Class: 6.1

UN Number: UN2811

Packing Group: III

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T N

Risk Phrases:

R 25 Toxic if swallowed.

R 36 Irritating to eyes.

R 43 May cause sensitization by skin contact.

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

Safety Phrases:

S 24 Avoid contact with skin.

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

S 37 Wear suitable 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# 2051-79-8: Not available

Canada

CAS# 2051-79-8 is listed on Canada's DSL List

Canadian WHMIS Classifications: D1B, 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# 2051-79-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 2051-79-8 is listed on the TSCA
Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #9 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.
