Material Safety Data Sheet  
Methylamine Hydrochloride, 98%

ACC# 96694

Section 1 - Chemical Product and Company Identification

**MSDS Name:** Methylamine Hydrochloride, 98%

**Catalog Numbers:** AC156780000, AC156780010, AC156782500, AC156785000

**Synonyms:** Methylammonium Chloride; Monomethylammonium 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

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
<th>EINECS/ELINCS</th>
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<tbody>
<tr>
<td>593-51-1</td>
<td>Methylamine Hydrochloride</td>
<td>98</td>
<td>209-795-0</td>
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</table>

**Hazard Symbols:** XI

**Risk Phrases:** 36/37/38

Section 3 - Hazards Identification

**EMERGENCY OVERVIEW**


**Target Organs:** No data found.

**Potential Health Effects**

**Eye:** Causes eye irritation. May cause chemical conjunctivitis.

**Skin:** Causes skin irritation.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.

**Inhalation:** Causes respiratory tract irritation. Can produce delayed pulmonary edema.

**Chronic:** Effects may be delayed.

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. 
**Skin:** Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. 
**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:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. 
**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. 
**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

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. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse. 
**Storage:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. 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**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
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</thead>
<tbody>
<tr>
<td>Methylamine Hydrochloride</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

**OSHA Vacated PELs:** Methylamine Hydrochloride: 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:** 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 a respirator's use.

### Section 9 - Physical and Chemical Properties

**Physical State:** Crystals

**Appearance:** white

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 225-230 deg C @ 15.00mm Hg

**Freezing/Melting Point:** 231.00 - 233.00 deg C

**Autoignition Temperature:** Not applicable.

**Flash Point:** Not applicable.

**Decomposition Temperature:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Reactivity: 0

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

**Upper:** Not available.

**Solubility:** soluble

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

**Molecular Formula:** CH₅N.HCl

**Molecular Weight:** 67.52

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Incompatible materials, excess heat, strong oxidants, exposure to moist air or water.

**Incompatibilities with Other Materials:** Moisture, acid anhydrides, acid chlorides, acids, oxidizing agents.

**Hazardous Decomposition Products:** Hydrogen chloride, nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

**Hazardous Polymerization:** Has not been reported.

### Section 11 - Toxicological Information

**RTECS#:**
**CAS#** 593-51-1: PA0603000

**LD50/LC50:**
CAS# 593-51-1:
Dermal, guinea pig: LD50 = >2 gm/kg;
Oral, rat: LD50 = 1600 mg/kg;

**Carcinogenicity:**
CAS# 593-51-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Neurotoxicity:** No information available.

**Mutagenicity:** No information available.

**Other Studies:** See actual entry in RTECS for complete information.

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**Section 12 - Ecological Information**

No information available.

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**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.

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**Section 14 - Transport Information**

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<th>IATA</th>
<th>RID/ADR</th>
<th>IMO</th>
<th>Canada TDG</th>
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<td>Additional Info:</td>
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<td>FLASHPOINT -18 C</td>
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**Section 15 - Regulatory Information**

**US FEDERAL**

**TSCA**

http://avogadro.chem.iastate.edu/MSDS/methylamine_HCl.htm
CAS# 593-51-1 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.

**SARA**

**Section 302 (RQ)**
None of the chemicals in this material have an RQ.

**Section 302 (TPQ)**
None of the chemicals in this product have a TPQ.

**SARA Codes**
CAS # 593-51-1: acute.

**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 depletors. This material does not contain any Class 2 Ozone depletors.

**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# 593-51-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
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:**
XI

**Risk Phrases:**
R 36/37/38 Irritating to eyes, respiratory system and skin.

**Safety Phrases:**
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 29 Do not empty into drains.

**WGK (Water Danger/Protection)**
CAS# 593-51-1: 1

**Canada**
CAS# 593-51-1 is listed on Canada’s DSL List. CAS# 593-51-1 is listed on Canada’s DSL List. This product has a WHMIS classification of D2B.
CAS# 593-51-1 is not listed on Canada’s Ingredient Disclosure List.

**Exposure Limits**
Section 16 - Additional Information

**MSDS Creation Date:** 9/02/1997  
**Revision #4 Date:** 8/02/2000

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 Fisher 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 Fisher has been advised of the possibility of such damages.