

# Material Safety Data Sheet

## Tyramine hydrochloride, >99% (titr.)

ACC# 95314

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Tyramine hydrochloride, >99% (titr.)

**Catalog Numbers:** AC422380000, AC422380050, AC422380250

**Synonyms:** 4-(2-Aminoethyl)phenol hydrochloride; p-hydroxyphenethylamine hydrochloride

**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
60-19-5	TYRAMINE HYDROCHLORIDE	>99	200-462-5

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: slightly beige solid.

**Caution!** May cause irritation. The toxicological properties of this material have not been fully investigated.

**Target Organs:** None.

#### Potential Health Effects

**Eye:** May cause eye irritation. Causes redness and pain.

**Skin:** May cause skin irritation. Causes redness and pain.

**Ingestion:** May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

**Chronic:** Not available.

### Section 4 - First Aid Measures

**Eyes:** 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 water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Remove from exposure and move to fresh air immediately. 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.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

**Flash Point:** Not available.

**Autoignition Temperature:** Not available.

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

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: ; Flammability: ; Instability:

### 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 generating dusty conditions.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

**Storage:** Do not store in direct sunlight. Store in a tightly closed container. Store in a dry area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
TYRAMINE HYDROCHLORIDE	none listed	none listed	none listed

**OSHA Vacated PELs:** TYRAMINE 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:** 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:** Solid

**Appearance:** slightly beige

**Odor:** Practically odorless

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** 269 deg C @ 760.00mm Hg

**Freezing/Melting Point:** 271 - 274 deg C

**Decomposition Temperature:** Not available.

**Solubility:** moderately soluble in water (10%)

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

**Molecular Formula:** C<sub>8</sub>H<sub>11</sub>NO.HCl

**Molecular Weight:** 173.65

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, light, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, acid chlorides, acid anhydrides

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

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 60-19-5: SJ6050000

**LD50/LC50:**

Not available.

**Carcinogenicity:**

CAS# 60-19-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** Mutation: mmo-mus-lym 1010 umol/Lmsc-mus-lym 2530 umol/L

**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:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 60-19-5 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.

#### 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# 60-19-5 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:

Not available.

#### Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

#### Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

#### WGK (Water Danger/Protection)

CAS# 60-19-5: 1

#### Canada - DSL/NDSL

CAS# 60-19-5 is listed on Canada's DSL List.

#### Canada - WHMIS

WHMIS: Not available.

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

## Section 16 - Additional Information

MSDS Creation Date: 9/02/1997

Revision #3 Date: 10/03/2005

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