Material Safety Data Sheet
Benzylamine, 99%

ACC# 97226

Section 1 - Chemical Product and Company Identification

MSDS Name: Benzylamine, 99%
Catalog Numbers: AC105850000, AC105850050, AC105851000, AC105855000
Synonyms: Benzenemethanamine; (Phenylmethyl)amine; alpha-Aminotoluene; Monobenzylamine.
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
100-46-9	Benzylamine	99	202-854-1

Hazard Symbols: C
Risk Phrases: 21/22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear slightly yellow liquid. Flash Point: 72 deg C. **Danger!** Corrosive. Causes eye and skin burns. Lachrymator (substance which increases the flow of tears). The toxicological properties of this material have not been fully investigated. Causes digestive and respiratory tract burns. Harmful if swallowed or absorbed through the skin. **Combustible liquid and vapor.**
Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns. Lachrymator (substance which increases the flow of tears).
Skin: Harmful if absorbed through the skin. Causes skin burns.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. The toxicological properties of this substance have not been fully investigated.
Inhalation: Causes chemical burns to the respiratory tract. The toxicological properties of this substance have not been fully investigated. Inhalation of vapors causes irritation of the mucous membranes.
Chronic: No information found.

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.
Antidote: None reported.

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. Contact with metals may evolve flammable hydrogen gas. Combustible liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray. Cool containers with flooding quantities of water until well after fire is out.
Flash Point: 72 deg C (161.60 deg F)
Autoignition Temperature: 390 deg C (734.00 deg F)
Explosion Limits, Lower:0.70
Upper: 8.20
NFPA Rating: (estimated) Health: 3; Flammability: 2; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not ingest or inhale. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. 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
Benzylamine	none listed	none listed	none listed

OSHA Vacated PELs: Benzylamine: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear chemical goggles and face shield.
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. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear slightly yellow
Odor: ammonia-like
pH: Strongly alkaline
Vapor Pressure: 133 mbar @ 120
Vapor Density: 3.70 (Air=1)
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: 182-185 deg C
Freezing/Melting Point:10 deg C
Decomposition Temperature: Not available.
Solubility: Slightly soluble.
Specific Gravity/Density:0.98
Molecular Formula:C7H9N
Molecular Weight:107.15

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Absorbs carbon dioxide from the air.
Conditions to Avoid: High temperatures, mechanical shock, ignition sources, excess heat, temperatures above 65°C, plastics.
Incompatibilities with Other Materials: Strong oxidizing agents, acids, anhydrides, isocyanates, acid anhydrides, acid chlorides, aldehydes, N-chlorosuccinimide.
Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 100-46-9: DP1488500
LD50/LC50:
Not available.

Carcinogenicity:
CAS# 100-46-9: 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: The hazard classification for this product is based on supp lier information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Fathead Minnow: LC50 = 94.5-106 mg/L; 96 Hr.; Flow-through, 23.9 degrees C, pH 7.9Fish: Fathead Minnow: EC50 = 17-21.4 mg/L; 5,10,15 Minutes; Microtox test No data available.
Environmental: If released to soil or water, benzylamine is expected to biodegrade.
Physical: If released to the atmosphere, benzylamine will exist primarily in the vapor-phase where it will degrade by reaction with photochemically produced hydroxyl radicals (estimated half-life of 11.5 hours).
Other: Based upon a measured log Kow of 1.09, the BCF for benzylamine can be estimated to be 4 from a recommended regression-derived equation. This estimated BCF value indicates that bioconcentration in aquatic organisms is not important environmentally.

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	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	AMINES, LIQUID, CORROSIVE, N.O.S.				No information available.
Hazard Class:	8				
UN Number:	UN2735				
Packing Group:	II				

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 100-46-9 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

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 # 100-46-9: acute, flammable.
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# 100-46-9 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:
C
Risk Phrases:
R 21/22 Harmful in contact with skin and 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# 100-46-9: 1
Canada - DSL/NDSL
CAS# 100-46-9 is listed on Canada's DSL List.
Canada - WHMIS
This product does not have a WHMIS classification.
Canadian Ingredient Disclosure List
Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 4/30/1999
Revision #4 Date: 1/21/2002