

Material Safety Data Sheet

Phenylethyl isothiocyanate, 96%

ACC# 47122

Section 1 - Chemical Product and Company Identification

MSDS Name: Phenylethyl isothiocyanate, 96%

Catalog Numbers: AC265160050, AC265160250

Synonyms: 2-Isothiocyanatoethylbenzene; Isothiocyanic acid, phenethyl ester; Benzene, (2-isothiocyanatoethyl)-; Phenethyl isothiocyanate; beta-Phenethyl isothiocyanate; Phenylaethylsenfoel; Phenylethyl isothiocyanate; beta-Phenylethyl isothiocyanate; 2-Phenylethyl isothiocyanate; Phenylethyl mustard oil

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
2257-09-2	Phenylethyl isothiocyanate	96	218-855-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: yellow liquid.

Warning! Causes eye, skin, and respiratory tract irritation. May cause allergic skin reaction. May be harmful if swallowed, inhaled, or absorbed through the skin. Moisture sensitive. The toxicological properties of this material have not been fully investigated.

Target Organs: Skin.

Potential Health Effects

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

Skin: Causes skin irritation. May be harmful if absorbed through the skin. Chronic exposure may result in sensitization.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation. May be harmful if inhaled.

Chronic: Repeated exposure may cause allergic respiratory reaction (asthma). Laboratory experiments have resulted in mutagenic effects. Prolonged or repeated exposure may cause lung irritation, chest pain, and pulmonary edema.

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. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

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 immediately.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire. Do NOT get water inside containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: 110 deg C (230.00 deg F)

Autoignition Temperature: Not applicable.

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: 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. Provide ventilation. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Do not allow contact with water. Keep from contact with moist air and steam.
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

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Phenylethyl isothiocyanate	none listed	none listed	none listed

OSHA Vacated PELs: Phenylethyl isothiocyanate: 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 respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: yellow

Odor: None reported.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: 5.63

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 113 deg C @ 1 mmHg

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: insoluble

Specific Gravity/Density: 1.1000g/cm³

Molecular Formula: C₉H₉NS

Molecular Weight: 163.24

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, moisture, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, strong bases, alcohols, amines, heat, moisture.

Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 2257-09-2: NX9115000

LD50/LC50:

CAS# 2257-09-2:

Oral, mouse: LD50 = 700 mg/kg;

Carcinogenicity:

CAS# 2257-09-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: Mutation data has been reported.

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: Cytogenetic Analysis: hamster ovary = 900 ug/L.; Sister Chromatid Exchange: hamster ovary = 1200 ug/L.; Mutation Test (unspecified): skin, mammal = 8 ug/L.; Cytogenetic Analysis: skin, mammal = 800 ug/L.

Neurotoxicity: No information found

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:	DOT regulated - small quantity provisions apply (see 49CFR173.4)	TOXIC LIQUID ORGANIC NOS (PHENYLETHYL ISOTHIOCYANA)
Hazard Class:		6.1
UN Number:		UN2810
Packing Group:		II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 2257-09-2 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# 2257-09-2 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:

XN

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

Safety Phrases:

S 36/37 Wear suitable protective clothing and gloves.

WGK (Water Danger/Protection)

CAS# 2257-09-2: No information available.

Canada - DSL/NDSL

CAS# 2257-09-2 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2A, 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.

Section 16 - Additional Information

MSDS Creation Date: 3/17/1999

Revision #3 Date: 10/03/2005

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.