

Material Safety Data Sheet

Phenyl Isothiocyanate, Sequenation Grade, 99% (GC)

ACC# 15034

Section 1 - Chemical Product and Company Identification

MSDS Name: Phenyl Isothiocyanate, Sequenation Grade, 99% (GC)

Catalog Numbers: AC417620000, AC417620075

Synonyms: PITC; USAF M-4

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
103-72-0	Phenyl isothiocyanate	99%	203-138-1

Hazard Symbols: None listed.

Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: pale yellow liquid. Flash Point: 87 deg C. Combustible liquid. Moisture sensitive. Lachrymator (substance which increases the flow of tears). Causes eye and skin irritation. Causes respiratory tract irritation. May cause digestive tract irritation. **Warning!**

Target Organs: None known.

Potential Health Effects

Eye: Causes eye irritation. May result in corneal injury. Lachrymator (substance which increases the flow of tears).

Skin: Causes skin irritation.

Ingestion: May cause irritation of the digestive tract.

Inhalation: Causes respiratory tract irritation. May cause asthma and shortness of breath. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Chronic: No information found.

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 immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do NOT induce vomiting. 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: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

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. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Combustible Liquid.

Extinguishing Media: Use carbon dioxide or dry chemical. Use agent most appropriate to extinguish fire. Do NOT get water inside containers. Cool containers with flooding quantities of water until well after fire is out.

Flash Point: 87 deg C (188.60 deg F)

Autoignition Temperature: Not available.

Explosion Limits, Lower:N/A

Upper: N/A

NFPA Rating: Not published.

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. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Do not breathe dust, vapor, mist, or gas. 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. Use only in a chemical fume hood. 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. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water.

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.

Exposure Limits

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

OSHA Vacated PELs: Phenyl 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 minimize contact with skin.

Respirators: 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: pale yellow

Odor: Penetrating, irritating odor.

pH: Not available.

Vapor Pressure: 1.2 mm Hg @ 50 deg

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 221 deg C @ 760.00mm Hg

Freezing/Melting Point: -21 deg C

Decomposition Temperature: > 260 deg C

Solubility: insoluble

Specific Gravity/Density: 1.1300g/cm³

Molecular Formula: C₇H₅NS

Molecular Weight: 135.19

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, moisture, acids.

Incompatibilities with Other Materials: Water - alcohols - strong bases - amines - organic acids - heat - strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide, cyanide fumes.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 103-72-0: NX9275000

LD50/LC50:

CAS# 103-72-0:

Oral, mouse: LD50 = 87 mg/kg;

Carcinogenicity:

CAS# 103-72-0: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: scu-mus TDL0: 225 mg/kg (female 6-14 D after conception): REP

Neurotoxicity: No information available.

Mutagenicity: Mutation test systems - not otherwise specified: skn-mam 800 µg/l cyt skn-mam 800 µg/l

Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: No data available. Water danger/protection: WGK 2 Invertebrate toxicity: EC50 (30 min.) Photobacterium phosphoreum 2.09 ppm Microtox test

Environmental: This chemical has a high potential to affect aquatic organisms and the germination and growth of some plants. It has a moderate potential to affect secondary waste treatment microorganisms. This chemical is expected to be biodegradable and is not expected to persist in the environment. It has a moderate potential to bioconcentrate. The direct instantaneous discharge to a receiving body of water of an amount of this chemical which will rapidly produce, by dilution, a final concentration of 0.01 mg/l or less is not expected to cause an adverse environmental effect.

Physical: No information available.

Other: 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	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	DOT regulated - small quantity provisions apply (see 49CFR173.4)				CORROSIVE LIQUIDS, NOS (PHENYL ISOTHIOCYANATE)
Hazard Class:					8(9.2)
UN Number:					UN1760
Packing Group:					II

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 103-72-0 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 # 103-72-0: acute, chronic, 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 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# 103-72-0 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:

Not available.

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 36/37/39 Wear suitable protective clothing, gloves

and eye/face protection.

S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)

CAS# 103-72-0: 2

Canada - DSL/NDSL

CAS# 103-72-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B3, D1A, E.

Canadian Ingredient Disclosure List

Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 9/24/1998

Revision #2 Date: 3/18/2003

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.