ATTN: SAFETY DIRECTOR  
UNIVERSITY OF WISCONSIN WHITewater  
P O BOX 296  
WHITewater WI 53190  
STEVE ANDERSON

MATERIAL SAFETY DATA SHEET  

--------------------- IDENTIFICATION ---------------------

PRODUCT #: 18935-3  
NAME: PHENYL ISOCYANATE, 98+%  
CAS #: 103-71-9  
MF: C7H5NCO

SYNONYMS:  
CARBANIL * FENYLISOKYANAT (CZECH) * ISOCYANIC ACID, PHENYL ESTER *  
KARBANIL (CZECH) * MONDUR P * PHENYL CARBIMIDE * PHENYL CARBONIMIDE *  
PHENYL ISOCYANATE * PHENYL ISOCYANATE (DOT) * UN 2487 (DOT) *

--------------------- TOXICITY HAZARDS ---------------------

RTECS #: DA3675000  
BENZENE, ISOCYANATE-

TOXICITY DATA

ORL-RAT LD50: 940 MG/KG  
SKN-RBT LD50: 7130 MG/KG

REVIEWS, STANDARDS, AND REGULATIONS

EPA TSCA CHEMICAL INVENTORY, 1986  
EPA TSCA §8(A) PRELIMINARY ASSESSMENT INFORMATION, FINAL RULE FEREC  
47, 26992-82  
EPA TSCA SECTION 8(F) STATUS REPORT BE40-0678-0178  
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 1989

ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS)  
DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

--------------------- HEALTH HAZARD DATA ---------------------

ACUTE EFFECTS

MAY BE FATAL IF INHALED, SWALLOWED, OR ABSORBED THROUGH SKIN.  
CAUSES BURNS.

MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES  
AND UPPER RESPIRATORY TRACT, EYES AND SKIN.  
INHALATION MAY BE FATAL AS A RESULT OF SPASM, INFLAMMATION AND EDEMA  
OF THE LARYNX AND BRONCHI, CHEMICAL PNEUMONITIS AND PULMONARY EDEMA.  
SYMPTOMS OF EXPOSURE MAY INCLUDE BURNING SENSATION, COUGHING,  
WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA AND  
VOMITING.

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ALLERGIC REACTIONS IN CERTAIN  
SENSITIVE INDIVIDUALS.

REPEATED EXPOSURE MAY CAUSE ASTHMA.

FIRST AID

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS  
AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED  
CLOTHING AND SHOES.  
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL  
RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.  
CALL A PHYSICIAN.

WASH CONTAMINATED CLOTHING BEFORE REUSE.
MATERIAL SAFETY DATA SHEET

CATALOG #: 18535-3  NAME: PHENYL ISOCYANATE, 98+%  

PHYSICAL DATA

MELTING POINT: -30°C  
BOILING POINT: 162°C TO 163°C  
SPECIFIC GRAVITY: 1.096  
VAPOR PRESSURE: 1.4 MM Hg 20°C  
2.8 MM Hg 55°C  
APPEARANCE: COLORLESS TO LIGHT-YELLOW  

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 132°F  
EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL POWDER.  
SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.  
UNUSUAL FIRE AND EXPLOSION HAZARD: COMBUSTIBLE, EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

REACTIVITY DATA

INCOMPATIBILITIES:
WATER, ALCOHOLS, STRONG BASES, AMINES, ACIDS, STRONG OXIDIZING AGENTS, HEAT.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE CARBON MONOXIDE, CARBON DIOXIDE, AND NITROGEN OXIDES.
HYDROGEN CYANIDE.

SPILL OR LEAK PROCEDURES

EVACUATE AREA.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

WASTE DISPOSAL METHOD:
THIS COMBUSTIBLE MATERIAL MAY BE BURNED IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
USE ONLY IN A CHEMICAL FUME HOOD.
SAFETY SHOWER AND EYE BATH.
DO NOT BREATHE VAPOR.
DO NOT GET IN EYES, ON SKIN, OR CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
HIGHLY TOXIC.
CORROSIVE.
LACHRYMATORY.
POSSIBLE SENSitizer.
KEEP TIGHTLY CLOSED.
MOISTURE-SENSITIVE.
KEEP AWAY FROM HEAT AND OPEN FLAME.
STORE IN A COOL DRY PLACE.

----------- ADDITIONAL PRECAUTIONS AND COMMENTS -----------
NOT APPLICABLE
----------- REGULATORY INFORMATION -----------
NOT APPLICABLE

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.