Chem-Impex International Inc.

Tel: (630) 766-2112 E-mail: sales@chemimpex.com Shipping and Correspondence: 935 Dillon Drive Wood Dale, IL 60191 USA Fax: (630) 766-2218 Web site: www.chemimpex.com Manufacturing site: 825 Dillon Drive Wood Dale, IL 60191 USA

SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	46054
NAME:	3-(Trifluoromethyl)benzonitrile
SYNONYMS:	3-Cyanobenzotrifluoride α, α, α -Trifluoro- <i>m</i> -tolunitrile
24 HOUR EMERGENCY	(800) 535-5053(USA)
TELEPHONE:	352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS) FLAMMABLE LIQUIDS (CATEGORY 4), H227 ACUTE TOXICITY, ORAL (CATEGORY 3), H301 ACUTE TOXICITY, DERMAL (CATEGORY 3), H311 SKIN CORROSION/IRRITATION (CATEGORY 2), H315 EYE DAMAGE/IRRITATION (CATEGORY 2A), H319 ACUTE TOXICITY, INHALATION (CATEGORY 3), H331

AQUATIC HAZARD (ACUTE) (CATEGORY 3), H402

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

PICTOGRAM



SIGNAL WORD

HAZARD STATEMENT(S)

H227	COMBUSTIBLE LIQUID.
H301 + H311 + H331	TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF
	INHALED.
H315	CAUSES SKIN IRRITATION.
H319	CAUSES SERIOUS EYE IRRITATION.
H402	HARMFUL TO AQUATIC LIFE

PRECAUTIONARY STATEMENT(S)

TRECAUTIONART STATEMENT(S)			
P210	KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT		
	SURFACES. NO SMOKING.		
P261	AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/		
	SPRAY.		
P264	WASH SKIN THOROUGHLY AFTER HANDLING.		
P270	DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.		
P271	USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.		
P273	AVOID RELEASE TO THE ENVIRONMENT.		
P280	WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE		
	PROTECTION.		
P301 + P310 + P330	IF SWALLOWED: IMMEDIATELY CALL A POISON		
	CENTER/DOCTOR. RINSE MOUTH.		
P302 + P352 + P312	IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER. CALL		
	A POISON CENTER OR DOCTOR IF YOU FEEL UNWELL		
P304 + P340 + P311	IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP		
	COMFORTABLE FOR BREATHING. CALL A POISON		
	CENTER/DOCTOR.		
P305 + P351 + P338	IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL		
	MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY		
	TO DO. CONTINUE RINSING.		
P337 + P313	IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/		
	ATTENTION.		
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE		
	REUSE.		
P405	STORE LOCKED UP.		
P403 + P233	STORE IN A WELL VENTILATED PLACE. KEEP CONTAINER		
	TIGHTLY CLOSED.		
P501	DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED		
	WASTE DISPOSAL PLANT.		

HAZARDS NOT NONE OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:	$\mathrm{C_8H_4F_3N}$
MW:	171.12
CAS-NO.	368-77-4

PURITY: $\geq 98\%$ (GC)

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
3-(Trifluoromethyl)benzo	nitrile	
	-	-

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

SECTION 4. FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE	CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.
IF INHALED	REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. CALL A POISON CENTER OR DOCTOR/PHYSICIAN.
IN CASE OF SKIN CONTACT	REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. GENTLY WASH WITH PLENTY OF SOAP AND WATER. CALL A POISON CENTER OR DOCTOR/PHYSICIAN.
IN CASE OF EYE CONTACT	RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO.CONTINUE RINSING. IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ATTENTION.
IF SWALLOWED	IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. RINSE MOUTH.
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	ACUTE: REDNESS. THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA	SUITABLE EXTINGUISHING MEDIA: DRY CHEMICAL, FOAM, WATER SPRAY, CARBON DIOXIDE.
	UNSUITABLE EXTINGUISHING MEDIA: SOLID STREAMS OF WATER
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	CARBON OXIDES NITROGEN OXIDES HALOGENATED COMPOUNDS
ADVICE FOR FIREFIGHTERS	WEAR SELF-CONTAINED BREATHING APPARATUS IF POSSIBLE.
FURTHER INFORMATION	WARNING: HIGHLY TOXIC HF GAS IS PRODUCED DURING COMBUSTION.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	USE PERSONAL PROTECTIVE EQUIPMENT. KEEP PEOPLE AWAY FROM AND UPWIND OF SPILL/LEAK. ENSURE ADEQUATE VENTILATION. ENTRY TO NON-INVOLVED PERSONNEL SHOULD BE CONTROLLED AROUND THE LEAKAGE AREA BY ROPING OFF, ETC.
ENVIRONMENTAL PRECAUTIONS	PREVENT PRODUCT FROM ENTERING DRAINS.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	ABSORB SPILLED MATERIAL IN A SUITABLE ABSORBENT (E.G. RAG, DRY SAND, EARTH, SAW-DUST). IN CASE OF LARGE AMOUNT OF SPILLAGE, CONTAIN A SPILL BY BUNDING. ADHERED OR COLLECTED MATERIAL SHOULD BE PROMPTLY DISPOSED OF, IN ACCORDANCE WITH APPROPRIATE LAWS AND REGULATIONS.
REFERENCE TO OTHER SECTIONS	FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	HANDLING IS PERFORMED IN A WELL VENTILATED PLACE. WEAR SUITABLE PROTECTIVE EQUIPMENT. PREVENT GENERATION OF VAPOUR OR MIST. KEEP AWAY FROM FLAMES AND HOT SURFACES. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. USE EXPLOSION-PROOF EQUIPMENT. WASH HANDS AND FACE THOROUGHLY AFTER HANDLING. USE A CLOSED SYSTEM IF POSSIBLE. USE A VENTILATION, LOCAL EXHAUST IF VAPOUR OR AEROSOL WILL BE GENERATED. AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	KEEP CONTAINER TIGHTLY CLOSED. STORE IN A COOL, DARK AND WELL-VENTILATED PLACE. STORE LOCKED UP. STORE AWAY FROM INCOMPATIBLE MATERIALS SUCH AS OXIDIZING AGENTS. Store at RT
SPECIFIC END USE(S)	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.

EXPOSURE CONTROLS

APPROPRIATE	FOLLOW SAFE INDUSTRIAL ENGINEERING/LABORATORY
ENGINEERING	PRACTICES WHEN HANDLING ANY CHEMICAL. INSTALL
CONTROLS	A CLOSED SYSTEM OR LOCAL EXHAUST. ALSO INSTALL
	SAFETY SHOWER AND EYE BATH.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

SKIN PROTECTION	HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE''S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.
BODY PROTECTION	IMPERVIOUS CLOTHING, FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING. THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.
RESPIRATORY PROTECTION	HALF OR FULL FACEPIECE RESPIRATOR, SELF- CONTAINED BREATHING APPARATUS(SCBA), SUPPLIED AIR RESPIRATOR, ETC. USE RESPIRATORS APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS AND FOLLOW LOCAL AND NATIONAL REGULATIONS.
CONTROL OF ENVIRONMENTAL EXPOSURE	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC I	PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE	White or colorless to almost white or almost colorless powder to
	lump to cl
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING	17 °C
POINT/FREEZING POINT	
INITIAL BOILING POINT	189 °C
AND BOILING RANGE	
FLASH POINT	72 °C
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID,	NO DATA AVAILABLE
GAS)	
UPPER/LOWER	NO DATA AVAILABLE
FLAMMABILITY OR	
EXPLOSIVE LIMITS	
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	1.28
WATER SOLUBILITY	NO DATA AVAILABLE
PARTITION COEFFICIENT:	NO DATA AVAILABLE
N- OCTANOL/WATER	
AUTO-IGNITION	NO DATA AVAILABLE
TEMPERATURE	

DECOMPOSITION NO DATA AVAILABLE TEMPERATURE VISCOSITY NO DATA AVAILABLE EXPLOSIVE PROPERTIES NO DATA AVAILABLE OXIDIZING PROPERTIES NO DATA AVAILABLE

OTHER SAFETY INFORMATION NO DATA AVAILABLE

SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	NO DATA AVAILABLE
CHEMICAL STABILITY	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS REACTIONS	NO SPECIAL REACTIVITY HAS BEEN REPORTED.
CONDITIONS TO AVOID	OPEN FLAME
INCOMPATIBLE MATERIALS	OXIDIZING AGENTS, REDUCING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	CARBON MONOXIDE, CARBON DIOXIDE ETC

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY NO DATA AVAILABLE

INHALATION: NO DATA AVAILABLE

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

NO DATA AVAILABLE

CORROSION/IRRITATION

SKIN

SERIOUS EYE NO DATA AVAILABLE DAMAGE/EYE IRRITATION

RESPIRATORY OR SKIN NO DATA AVAILABLE **SENSITISATION**

GERM CELL MUTAGENICITY	NO DATA AVAILABLE
CARCINOGENICITY IARC:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.
NTP:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.
OSHA:	NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.
REPRODUCTIVE TOXICITY	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	NO DATA AVAILABLE
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	NO DATA AVAILABLE
ASPIRATION HAZARD	NO DATA AVAILABLE
ADDITIONAL INFORMATION	RTECS: NOT AVAILABLE
	TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY	NO DATA AVAILABLE
PERSISTENCE AND DEGRADABILITY	NO DATA AVAILABLE
BIOACCUMULATIVE POTENTIAL	NO DATA AVAILABLE
MOBILITY IN SOIL	NO DATA AVAILABLE
RESULTS OF PBT AND VPVB ASSESSMENT	NO DATA AVAILABLE

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCTOFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO
A LICENSED DISPOSAL COMPANY. BURN IN A CHEMICAL
INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS
THIS MATERIAL IS HIGHLY FLAMMABLE. CONTACT A
LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO
DISPOSE OF THIS MATERIAL.

CONTAMINATED PACKAGING DISPOSE OF AS UNUSED PRODUCT.

SECTION 14. TRANSPORT INFORMATION

DOT (US) PROPER SHIPPING NAME:	NITRILES, LIQUID, TOXIC, N.O.S (3- (Trifluoromethyl)benzonitrile)
UN NUMBER:	3276
CLASS:	6.1
PACKING GROUP:	III
IMDG	
PROPER SHIPPING NAME:	NITRILES, LIQUID, TOXIC, N.O.S (3- (Trifluoromethyl)benzonitrile)
UN NUMBER:	3276
CLASS:	6.1
PACKING GROUP:	III
EMS-NO:	F-A, S-A
IATA	
PROPER SHIPPING NAME:	NITRILES, LIQUID, TOXIC, N.O.S (3- (Trifluoromethyl)benzonitrile)
UN NUMBER:	3276
CLASS:	6.1
PACKING GROUP:	III

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

SARA 313 COMPONENTS THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

MASSACHUSETTS RIGHT TO KNOW COMPONENTS NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO.

REVISION DATE

3-(Trifluoromethyl)benzonitrile 368-77-4

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS-NO. 3-(Trifluoromethyl)benzonitrile 368-77-4

REVISION DATE

SECTION 16. OTHER INFORMATION

FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H227	COMBUSTIBLE LIQUID.
H301 + H311 + H331	TOXIC IF SWALLOWED, IN CONTACT WITH SKIN OR IF
	INHALED.
H315	CAUSES SKIN IRRITATION.
H319	CAUSES SERIOUS EYE IRRITATION.
H402	HARMFUL TO AQUATIC LIFE

MSDS LEGEND	
MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENENTAL
	INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH
	ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)
IMPORTANT:	

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 CII 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 CII HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. VERSION: 3.2.