Chem-Impex International Inc.

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SAFETY DATA SHEET

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	45999
NAME:	2-Fluoro-4-methylaniline
SYNONYMS:	4-Amino-3-fluorotoluene 2-Fluoro- <i>p</i> -toluidine
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, INHALATION (CATEGORY 3), H331 ACUTE TOXICITY, DERMAL (CATEGORY 3), H311 SKIN IRRITATION (CATEGORY 2), H315 EYE IRRITATION (CATEGORY 2A), H319 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3), RESPIRATORY SYSTEM, H335

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.

H335 MAY CAUSE RESPIRATORY IRRITATION.

PRECAUTIONARY STATEMENT(S)

1100101101010101	
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.
P280	WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ 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 WATER. CALL A POISON
	CENTER/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.
P332 + P313	IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/
	ATTENTION.
P337 + P313	IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/
	ATTENTION.
P362	TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE
	REUSE.
P370 + P378	IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR
	ALCOHOL-RESISTANT FOAM TO EXTINGUISH.

P403 + P233	STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED.
P403 + P235 P405 P501	STORE IN A WELL-VENTILATED PLACE. KEEP COOL. STORE LOCKED UP. DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.
HAZARDS NOT OTHERWISE CLASSIFIED (HNOC)	NONE

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:	C7H8FN
MW:	125.15
CAS-NO.	452-80-2
PURITY:	\geq 97% (GC)

OR NOT COVERED

BY GHS

HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
2-Fluoro-4-methylaniline		
	FLAM. LIQ. 4; ACUTE TOX. 3; SKIN IRRIT. 2; EYE IRRIT. 2A; STOT SE 3; H227, H301, H331, H311, H315, H319, H335	<= 100 %

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	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

IN CASE OF SKIN CONTACT	WASH OFF WITH SOAP AND PLENTY OF WATER. TAKE VICTIM IMMEDIATELY TO HOSPITAL. CONSULT A PHYSICIAN.
IN CASE OF EYE CONTACT	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.
IF SWALLOWED	DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED	NO DATA AVAILABLE

SECTION 5. FIRE AND EXPLOSION DATA

EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA	SUITABLE EXTINGUISHING MEDIA USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
	UNSUITABLE EXTINGUISHING MEDIA DO NOT USE WATER JET.
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	CARBON OXIDES NITROGEN OXIDES (NOX) HYDROGEN FLUORIDE COMBUSTIBLE.
ADVICE FOR FIREFIGHTERS	WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.
FURTHER INFORMATION	USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONALWEAR RESPIRATORY PROTECTION. AVOID BREATHINGPRECAUTIONS,VAPOURS, MIST OR GAS. ENSURE ADEQUATE

PROTECTIVE	VENTILATION. REMOVE ALL SOURCES OF IGNITION.
EQUIPMENT AND	EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF
EMERGENCY	VAPOURS ACCUMULATING TO FORM EXPLOSIVE
PROCEDURES	CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN
	LOW AREAS.
	FOR PERSONAL PROTECTION SEE SECTION 8.
ENVIRONMENTAL	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE
PRECAUTIONS	TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.
METHODS AND	CONTAIN SPILLAGE, AND THEN COLLECT WITH NON-
MATERIALS FOR	COMBUSTIBLE ABSORBENT MATERIAL, (E.G. SAND,
CONTAINMENT AND	EARTH, DIATOMACEOUS EARTH, VERMICULITE) AND
CLEANING UP	PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO
	LOCAL / NATIONAL REGULATIONS (SEE SECTION 13).
	KEEP IN SUITABLE, CLOSED CONTAINERS FOR
	DISPOSAL.
REFERENCE TO OTHER SECTIONS	FOR DISPOSAL SEE SECTION 13.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOUR OR MIST. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE. AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH HANDS BEFORE BREAKS AND IMMEDIATELY AFTER HANDLING THE PRODUCT. FOR PRECAUTIONS SEE SECTION 2.2.
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE.
SPECIFIC END USE(S)	Store at RT 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	AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WASH
ENGINEERING	HANDS BEFORE BREAKS AND IMMEDIATELY AFTER
CONTROLS	HANDLING THE PRODUCT.

PERSONAL PROTECTIVE EQUIPMENT

- EYE/FACEFACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FORPROTECTIONEYE PROTECTION TESTED AND APPROVED UNDERAPPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH
(US) OR EN 166(EU).
- SKINHANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIORPROTECTIONTO 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.
- BODYCOMPLETE SUIT PROTECTING AGAINST CHEMICALS, THEPROTECTIONTYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED
ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE
DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.
- **RESPIRATORY**WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING
RESPIRATORS ARE APPROPRIATE USE A FULLFACE
RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR
TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A
BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS
THE SOLE MEANS OF PROTECTION, USE A FULL-FACE
SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND
COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE
GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).CONTROL OFPREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO
- **ENVIRONMENTAL** SO. DO NOT LET PRODUCT ENTER DRAINS. **EXPOSURE**

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE ODOUR ODOUR THRESHOLD PH Light yellow to yellow to orange clear liquid NO DATA AVAILABLE NO DATA AVAILABLE NO DATA AVAILABLE

MELTING	3 °C
POINT/FREEZING POINT	
INITIAL BOILING POINT	71 °C/7 mmHg
AND BOILING RANGE	-
FLASH POINT	79 °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	1.11
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 DATA AVAILABLE
CONDITIONS TO AVOID	HEAT, FLAMES AND SPARKS.
INCOMPATIBLE MATERIALS	STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	IN THE EVENT OF FIRE: SEE SECTION 5

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY LD50 ORAL - BIRD (WILD) - 100 MG/KG

> LC50 INHALATION - 4 H - 3 MG/L (ACUTE TOXICITY ESTIMATE)

LD50 DERMAL - 300 MG/KG

NO DATA AVAILABLE

NO DATA AVAILABLE

SERIOUS EYE NO DATA AVAILABLE **DAMAGE/EYE IRRITATION**

RESPIRATORY OR SKIN NO DATA AVAILABLE SENSITISATION

GERM CELL NO DATA AVAILABLE **MUTAGENICITY**

CARCINOGENICITY IARC.

CORROSION/IRRITATION

SKIN

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.

HUMAN CARCINOGEN BY IARC.

NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS

IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

SPECIFIC TARGET ORGAN **INHALATION - MAY CAUSE RESPIRATORY TOXICITY - SINGLE** IRRITATION. EXPOSURE

SPECIFIC TARGET ORGAN NO DATA AVAILABLE **TOXICITY - REPEATED** EXPOSURE

ASPIRATION HAZARD NO DATA AVAILABLE ADDITIONAL INFORMATION

RTECS: XU6650000

ABSORPTION INTO THE BODY LEADS TO THE FORMATION OF METHEMOGLOBIN WHICH IN SUFFICIENT CONCENTRATION CAUSES CYANOSIS. ONSET MAY BE DELAYED 2 TO 4 HOURS OR LONGER. 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 NO DATA AVAILABLE DEGRADABILITY

BIOACCUMULATIVE NO DATA AVAILABLE **POTENTIAL**

MOBILITY IN SOIL NO DATA AVAILABLE

RESULTS OF PBT ANDPBT/VPVB ASSESSMENT NOT AVAILABLE ASVPVB ASSESSMENTCHEMICAL SAFETY ASSESSMENT NOT
REQUIRED/NOT CONDUCTED

OTHER ADVERSE EFFECTS NO DATA AVAILABLE

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCTOFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS
TO A LICENSED DISPOSAL COMPANY. THIS
COMBUSTIBLE MATERIAL MAY BE BURNED IN A
CHEMICAL INCINERATOR EQUIPPED WITH AN
AFTERBURNER AND SCRUBBER. CONTACT A LICENSED
PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE
OF THIS MATERIAL.

CONTAMINATEDDISPOSE OF AS UNUSED PRODUCT.PACKAGINGDispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US)	
PROPER SHIPPING NAME:	TOXIC, LIQUID, ORGANIC, N.O.S. (2-Fluoro-4- methylaniline)
UN NUMBER:	2810
CLASS:	6.1
PACKING GROUP:	III
REPORTABLE QUANTITY	
(RQ):	
POISON INHALATION	NO
HAZARD:	
IMDG	
PROPER SHIPPING NAME:	TOXIC, LIQUID, ORGANIC, N.O.S. (2-Fluoro-4-
FROFER SHIFFING MAME.	methylaniline)
UN NUMBER:	2810
CLASS:	6.1
PACKING GROUP:	III
EMS-NO:	F-A, S-A
T 4 /T 4	
IATA	
PROPER SHIPPING NAME:	TOXIC, LIQUID, ORGANIC, N.O.S. (2-Fluoro-4- methylaniline)
UN NUMBER:	2810
CLASS:	6.1
PACKING GROUP:	III

SECTION 15. REGULATORY INFORMATION

SARA 302 COMPONENTS	NO CHEMICALS IN THIS MAT THE REPORTING REQUIREM SECTION 302.	
SARA 313 COMPONENTS	THIS MATERIAL DOES NOT C COMPONENTS WITH KNOWN EXCEED THE THRESHOLD (I LEVELS ESTABLISHED BY SA	N CAS NUMBERS THAT DE MINIMIS) REPORTING
SARA 311/312 HAZARDS	FIRE HAZARD, ACUTE HEAL	TH HAZARD
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

NEW JERSEY RIGHT TO KNOW COMPONENTS

452-80-2

2-Fluoro-4-methylaniline

CAS-NO. 452-80-2

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.
H335	MAY CAUSE RESPIRATORY IRRITATION.

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:

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