

# *Chem-Impex International Inc.*

---

Tel: (630) 766-2112

Fax: (630) 766-2218

E-mail: [sales@chemimpex.com](mailto:sales@chemimpex.com)

Web site: [www.chemimpex.com](http://www.chemimpex.com)

**Shipping and Correspondence:**

935 Dillon Drive  
Wood Dale, IL 60191 USA

**Manufacturing site:**

825 Dillon Drive  
Wood Dale, IL 60191 USA

## M A T E R I A L   S A F E T Y   D A T A   S H E E T

---

### SECTION 1. CHEMICAL IDENTIFICATION

---

CATALOG #: 12973

NAME: N<sup>4</sup>-Fmoc-Piz-2-carboxylic acid

SYNONYMS: N<sup>4</sup>-Fmoc-piperazine-2-carboxylic acid

24 HOUR EMERGENCY TELEPHONE: (800) 535-5053(USA)  
352-323-3500 (INTERNATIONAL)

TO REQUEST AN MSDS: (800) 869-9290

CUSTOMER SERVICE: (630) 766-2112

---

### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

---

CAS #: 219312-90-0

MF: C<sub>21</sub>H<sub>22</sub>N<sub>2</sub>O<sub>4</sub>·H<sub>2</sub>O

MW: 384.42

PURITY:

---

### SECTION 3. HAZARDS IDENTIFICATION

---

NOT AVAILABLE.

#### **POTENTIAL HEALTH EFFECTS**

THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL HAVE NOT BEEN INVESTIGATED. USE APPROPRIATE PROCEDURES TO PREVENT OPPORTUNITIES FOR DIRECT CONTACT WITH THE SKIN OR EYES AND TO PREVENT INHALATION.

---

### SECTION 4. FIRST-AID MEASURES

---

EYES: NOT AVAILABLE.

SKIN: NOT AVAILABLE.

INHALATION: NOT AVAILABLE.

INGESTION: DO NOT INDUCE VOMITING. IF CONSCIOUS AND ALERT, RINSE MOUTH AND DRINK 2-4 CUPFULS OF MILK OR WATER.

NOTES FOR PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

---

### SECTION 5. FIRE FIGHTING MEASURES

---

FLASH POINT: NOT AVAILABLE

AUTOIGNITION TEMPERATURE: NOT AVAILABLE

FLAMMABLE LIMITS IN AIR, BY % VOLUME  
UPPER: NOT AVAILABLE  
LOWER: NOT AVAILABLE

EXTINGUISHING MEDIA: NOT AVAILABLE.

GENERAL INFORMATION: AS IN ANY FIRE, WEAR A SELF-CONTAINED BREATHING APPARATUS IN PRESSURE-DEMAND, MSHA/NIOSH (APPROVED OR EQUIVALENT), AND FULL PROTECTIVE GEAR.

---

## SECTION 6. ACCIDENTAL RELEASE MEASURES

---

USE PROPER PERSONAL PROTECTIVE EQUIPMENT AS INDICATED IN SECTION 8.

SPILLS AND LEAKS: SWEEP UP, THEN PLACE INTO A SUITABLE CONTAINER FOR DISPOSAL.

---

## SECTION 7. HANDLING AND STORAGE

---

HANDLING NOT AVAILABLE.

STORAGE KEEP COOL AND DRY

---

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

---

ENGINEERING CONTROLS: USE ADEQUATE GENERAL OR LOCAL EXHAUST VENTILATION TO KEEP AIRBORNE CONCENTRATIONS BELOW THE PERMISSIBLE EXPOSURE LIMITS.

EYES: WEAR SAFETY GLASSES AND CHEMICAL GOGGLES IF SPLASHING IS POSSIBLE.

SKIN AND CLOTHING: WEAR APPROPRIATE PROTECTIVE GLOVES AND CLOTHING TO PREVENT SKIN EXPOSURE.  
WEAR APPROPRIATE PROTECTIVE CLOTHING TO MINIMIZE CONTACT WITH SKIN.

RESPIRATORS: WEAR A NIOSH/MSHA OR EUROPEAN STANDARD EN 149 APPROVED FULL-FACEPIECE AIRLINE RESPIRATOR IN THE POSITIVE PRESSURE MODE WITH EMERGENCY ESCAPE PROVISIONS.

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

---

APPEARANCE:

pH: NOT AVAILABLE

VAPOR PRESSURE: NEGLIGIBLE.

VISCOSITY: NOT AVAILABLE

BOILING POINT:

FREEZING / MELTING  
POINT

---

SECTION 10. STABILITY AND REACTIVITY

---

CHEMICAL  
STABILITY:

STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

CONDITIONS TO  
AVOID

INCOMPATIBLE MATERIALS.

INCOMPATIBILITY  
WITH OTHER  
MATERIALS:

OXIDIZING AGENTS, REDUCING AGENTS, BASES, ALKALI METALS.

HAZARDOUS  
DECOMPOSITION  
PRODUCTS:

CARBON MONOXIDE, CARBON DIOXIDE.

HAZARDOUS  
POLYMERIZATION:

HAS NOT BEEN REPORTED.

---

SECTION 11. TOXICOLOGICAL INFORMATION

---

RTECS#:

CAS# 219312-90-0

LD50/LC50:

CAS# 219312-90-0 :  
NOT AVAILABLE.

CARCINOGENICITY:

CAS# 219312-90-0 : NOT LISTED BY ACGIH, IARC, NIOSH, NTP, OR OSHA. SEE ACTUAL  
ENTRY IN RTECS FOR COMPLETE INFORMATION.

---

SECTION 12. ECOLOGICAL INFORMATION

---

DATA NOT YET AVAILABLE.

---

SECTION 13. DISPOSAL CONSIDERATIONS

---

DISPOSE OF IN A MANNER CONSISTENT WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

---

SECTION 14. TRANSPORT INFORMATION

---

NO INFORMATION AVAILABLE.

---

SECTION 15. REGULATORY INFORMATION

---

**U.S. FEDERAL REGULATIONS:**

**TSCA:**

CAS# 219312-90-0 IS LISTED ON THE TSCA INVENTORY.

**EUROPEAN/INTERNATIONAL REGULATIONS**

**EUROPEAN LABELING IN ACCORDANCE WITH EC DIRECTIVES**

**HAZARD SYMBOLS:** NOT AVAILABLE.

**RISK PHRASES:**

**SAFETY PHRASES:**

S 24/25 AVOID CONTACT WITH SKIN AND EYES.

**WGK (WATER DANGER/PROTECTION)**

CAS# 219312-90-0 : NO INFORMATION AVAILABLE.

**UNITED KINGDOM OCCUPATIONAL EXPOSURE LIMITS**

**UNITED KINGDOM MAXIMUM EXPOSURE LIMITS**

**CANADA - DSL/NDSL**

CAS# 219312-90-0 IS LISTED ON CANADA'S DSL LIST.

**CANADIAN INGREDIENT DISCLOSURE LIST**

CAS# 219312-90-0 : IS NOT LISTED ON CANADA'S INGREDIENT DISCLOSURE LIST.

**EXPOSURE LIMITS**

---

SECTION 16. OTHER INFORMATION

---

MSDS LEGEND:

MW: MOLECULAR WEIGHT  
MF: MOLECULAR FORMULA  
VOC: VOLATILE ORGANIC COMPOUNDS  
ACGIH: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL  
HYGIENISTS  
CAS: CHEMICAL ABSTRACTS SERVICE 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.