



MATERIAL SAFETY DATA SHEET

CONTACT : **LEONID CHEMICALS**
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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: (S)-N-FMOC-4-Chlorophenylalanine, 95%, (98% E.E.)

Catalog Numbers:

36163-0000, 36163-0010, 36163-0050

Synonyms:

N-(9-Fluorenylmethoxycarbonyl)-4-chlorophenyl-L-alanine

Company Identification:

LEONID CHEMICALS
62/A-2 2nd Stage, Industrial Suburb
Yeshwanthpur, Bangalore -22, INDIA
Ph- +91-80-23378354

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

| | | |
|----------------|---|----------------------------------|
| CAS # | : | 175453-08-4 |
| Chemical Name | : | (S)-N-FMOC-4-Chlorophenylalanine |
| % | : | 95% |
| EINECS# | : | unlisted |
| Hazard Symbols | : | None Listed. |
| Risk Phrases | : | None Listed. |

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Not available.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May be harmful if absorbed through the skin.

Ingestion:

May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. May be harmful if inhaled.

Chronic:

Not available.



SECTION 4 - FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

Get medical aid. Wash mouth out with water.

Inhalation:

Remove from exposure and move to fresh air immediately.

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.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container.

SECTION 7 - HANDLING AND STORAGE

Handling:

Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage:

Store in a cool, dry place. Store in a tightly closed container.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

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 | : Solid |
| Color | : white to off-white |
| Odor | : Not available. |
| PH | : Not available. |
| Vapor Pressure | : Not available. |
| Viscosity | : Not available. |
| Boiling Point | : Not available. |
| Freezing/Melting Point | : 138 deg C |
| Autoignition Temperature | : Not available. |
| Flash Point | : Not available. |
| Explosion Limits, lower | : Not available. |
| Explosion Limits, upper | : Not available. |
| Decomposition Temperature | NA |
| Solubility in water | NA |
| Specific Gravity/Density | NA |
| Molecular Formula | C ₂₄ H ₂₀ ClNO ₄ |
| Molecular Weight | 421.87 |

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials:
Strong oxidizing agents.

Hazardous Decomposition Products:
Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization:
Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 175453-08-4 unlisted.

LD50/LC50:
Not available.

Carcinogenicity:
(S)-N-FMOC-4-Chlorophenylalanine -
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

NA

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 - TRANSPORT INFORMATION

IATA
No information available.

IMO
No information available.

RID/ADR
No information available.

SECTION 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

NA

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 175453-08-4: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.
CAS# 175453-08-4 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 175453-08-4 is not listed on the TSCA inventory.
It is for research and development use only.

SECTION 16 - ADDITIONAL INFORMATION

MSDS Creation Date: 8/08/2001 Revision #0 Date: Original.

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