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**** MATERIAL SAFETY DATA SHEET ****

d-Phenylalanine, 99+%

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: d-Phenylalanina, 99+% Catalog Numbers: AC172640000, AC172640250

Synonyms:

(R)-2-Amino-3-phenylpropionic acid
Company Identification: Acros Organics N.V.
One Reagent Lane
For enformation in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

673-06-3 D-Phenylalanine Chemical Name 99+% 211-603-5 * EINECS#

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: white.
Caution: The toxicological properties of this material have not been
fully investigated. May cause eye and skin irritation. May cause
respiratory and digestive tract irritation.
Target Organs: None known.

Potential Health Effects

May cause eye irritation.

Skin:

May cause skin irritation.
Ingestion:
May cause gastroitestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.
Inhalation:
May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:
Chronic:

**** SECTION 4 - FIRST AID MEASURES ****

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

Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:
If victim is conscious and alert, give 2-4 cuptuls of milk or water.
Never give anything by mouth to an unconscious person. Get medical

Inhalation:
Remove from exposure to fresh air immediately. Get medical aid if cough or other symptoms appear.
Notes to Physician:
Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:
As in any lirs, wear a self-contained breathing apparatus in As in any lirs, wear a self-contained breathing apparatus in pressure-demand, MSHANIOSH (approved or equivalent), and full pressure demand, we water spray, dry chemical, carbon dioxide, or chamical foam.

Authorities foam:
Authorities Temperature: Not available.

NEPA Rating: Not available.

NEPA Rating: Not available.

Upper: Not available.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 6.

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Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. -*****SECTION'7 - HANDLING and STORAGE ****

Handling:
Wash thoroughly after handling. Use with adequate ventilation.
Wash thoroughly after handling. Use with adequate ventilation.
Minimize dust generation and accumulation. Avoid contact with eyes,
skin, and clothing. Keep container tightly closed. Avoid ingestion
and inhalation.

Storage:
Store in a tightly closed container. Store in a cool, dry,
well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls: Use adequate ventilation to keep airborne concentrations low

Exposure Limits

Chemical Name ACGIH
D-Phenylalanine none listed none NIOSH OSHA - Final PELs

OSHA Vacated PELs:

D-Phenylalanine:

No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

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 29CFR 1910.134. Always use a NIOSH-approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Appearance:

Vapor Pressure: Vapor Density: Evaporation Rate: Viscosity: Not available Not available Not available Not available

viscosity:

Boiling Point:

Post Type Post Type Point:

Post Type Po

**** 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, acids, bases.
Hazardous Decomposition Products:
Nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#: CAS#_673-06-3: AY7533000

L050/

Not available. Carcinogenicity: D-Phenylalanine Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

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Ecotoxicity: Not available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Dispose of in a manner consistent with federal, state, and local regulations. RCRA D-Series Maximum Concentration of Contaminants: None listed.

None listed.

RCRA D-Series Chronic Toxicity Reference Levels: None

ACRA F-Series: None listed. ACRA P-Series: None listed. RCRA L-Series: None listed. Not listed as a material banned from land disposal according to RCRA.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT No information available Not regulated as a hazardous material

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Not regulated as a hazardous material RID/ADR ATA

Not regulated as a hazardous material Canadian TDG
No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
TSCAS# 673-06-3 is listed on the TSCA inventory.
Health & Safety Reporting List.
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

Section 302 (RQ).
None of the chemicals in this material have an RQ.
Section 302 (FPQ)
None of the chemicals in this product have a TPQ.
Section 313 No chemicals are reportable under Section 313. In Air Act:

Clean Air Act:

This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors. This material does not contain any Class 2 Ozone depletors. This material does not contain any Class 2 Ozone depletors. Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
Dy Department is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level:
None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 673-06-3: 0

None of the chemicals in this product are listed on the DSL/NDSL list. WHMIS. Not available.

CAS# 67-06-3 is not listed on Canada's Ingredient Disclosure List. Exposure Limits Canada

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 3/01/1994 Revision #2 Date: 9/02/1997

The information above is balleved to be accurate and represents the best information currently available to us. However, we make no warranty of merchandability or any other warranty, express or implied, with respect to

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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 way shall fisher 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, howscover arising, even if Fisher has been advised of the possibility of such damages.