Material Safety Data Sheet
Nifedipine, USP grade

MSDS# 02068

Section 1 - Chemical Product and Company Identification

MSDS Name: Nifedipine, USP grade
Catalog Numbers: AC329270000, AC329270010, AC329270050
Synonyms: Procardia; Adalate; Corinfar.

Company Identification:
Acros Organics BVBA
Janssen Pharmaceuticaalaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call:
800-ACROS-01

For information in Europe, call:
+32 14 57 52 11

Emergency Number, Europe:
+32 14 57 52 99

Emergency Number US:
201-796-7100

CHEMTREC Phone Number, US:
800-424-9300

CHEMTREC Phone Number, Europe:
703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 21829-25-4
Chemical Name: Nifedipine

EINECS#: 244-598-3

Hazard Symbols: XN

Risk Phrases: 22

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Light sensitive. The toxicological properties of this material have not been fully investigated. May be harmful if swallowed. May cause eye, skin, and respiratory tract irritation. Target Organs: Blood, central nervous system, cardiovascular system, eyes.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. May cause cardiac disturbances. The toxicological properties of this substance have not been fully investigated. May be harmful if swallowed. May cause cardiovascular effects including low blood pressure and shock. May cause central nervous system effects. May cause hallucinations and distorted perceptions.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.
Chronic: May cause reproductive and fetal effects.

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. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not available

Flash Point: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 1;

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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid Handling: breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Store protected from light.

Storage: Store in a tightly closed container. Keep refrigerated. (Store below 4°C/39°F.) Store protected from light.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nifedipine</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Nifedipine: None listed

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
Color: yellow
Odor: odorless
pH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 171 - 175 deg C
Decomposition Temperature: Not available
Solubility in water: Insoluble
Specific Gravity/Density:
Molecular Formula: C17H18N2O6
Molecular Weight: 346.1358

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Light, dust generation.
Incompatibilities with Other Materials Oxidizing agents.
Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, carbon dioxide.
Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 21829-25-4: US7975000
RTECS: CAS# 21829-25-4: Oral, mouse: LD50 = 202 mg/kg;
LD50/LC50: Oral, rabbit: LD50 = 504 mg/kg;
Oral, rat: LD50 = 1022 mg/kg;

Carcinogenicity: Nifedipine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information. May cause neurotoxic effects.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT
Shipping Name: Not Regulated
Hazard Class:
UN Number:
Packing Group:
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: XN
Risk Phrases:
R 22 Harmful if swallowed.
Safety Phrases:

WGK (Water Danger/Protection)
CAS# 21829-25-4: Not available

Canada
CAS# 21829-25-4 is listed on Canada's DSL List
Canadian WHMIS Classifications: D1B, D2A
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 21829-25-4 is not listed on Canada's Ingredient Disclosure List.

US Federal
TSCA
CAS# 21829-25-4 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Other Information

MSDS Creation Date: 1/21/2000
Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility 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 the company 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 the company has been advised of the possibility of such damages.

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