

MATERIAL SAFETY DATA SHEET

HONEYWELL CHEMICALS{PRIVAT } VALE ROAD ARKLOW CO WICKLOW IRELAND. TEL: 353 (402) 20300 FAX: 353 (402) 31147	SPECIALTY	MSDS NO: MS-022-4 SUPERSEDES: MS-022-3 VALID FROM: <u>April 2003</u> APPROVED BY: _____ <div style="text-align: right;">Health & Safety Manager</div>
--	-----------	--

COMMERCIAL PRODUCT NAME: ORPHENADRINE HYDROCHLORIDE

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY UNDERTAKING

Product Name : N-N-Dimethyl-2-methylphenyl)phenylmethoxy] ethanamine Hydrochloride.
Product Type : Anticholinergic.
Manufacturer/Supplier : Honeywell Research & Life Science Solutions
Address : Vale Road, Arklow, Co. Wicklow, Ireland.
Phone Number : **353-402-20300**
Fax Number : **353-402-31147**
Emergency Phone Number : **353-402-20300**

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients : N-N-Dimethyl-2-methylphenyl)phenylmethoxy] ethanamine Hydrochloride.
CAS No. : 341 - 69 - 5.
Einecs No. : 206-435-4
Weight % : 99%
Symbols : **T**
R. Phrases : R25 Toxic if swallowed.
 R39 Danger of very serious irreversible effects.
 20/21 Harmful by inhalation and in contact with skin.

SECTION 3: HAZARDS IDENTIFICATION

Main Hazards	: Toxic if swallowed.
Health Effects - Eye	: May cause irritation-Dilation of the pupils may be a sign of toxic exposure.
Health Effects - Skin	: May cause irritation.
Health effects - Ingestion	: Toxic if swallowed.
Health Effects - Inhalation	: May cause irritation of respiratory tract. Inhalation may cause systemic effects similar to those caused by ingestion.

SECTION 4: FIRST AID MEASURES

Symptoms and Effects	: No data available.
First Aid - Inhalation	: Remove subject to fresh air.
First Aid - Skin	: Remove soaked clothing immediately and wash affected skin with copious quantities of water.
First Aid - Eyes	: Flush with copious quantities of water. Obtain medical attention.
First Aid - Ingestion	: If swallowed and if victim is conscious, give large quantities of water to drink. Call a physician Immediately.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media	: Use water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials.
Unsuitable Extinguishing Media	: No data available.
Special Hazards of Product	: No data available.
Hazardous Combustion Products	: Emits toxic fumes under fire conditions
Protective equipment for Fire Fighting	: As with all fires evacuate personnel to safe area. Fire fighters should use self-contained breathing apparatus and protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions	: Wear approved respirator and rubber or vinyl gloves, vacuum, or sweep-up spillage. Avoid dust. Place spillage in appropriate container for waste disposal. Wash spill site.
-----------------------------	---

- Environmental Precautions** : In case of spills, isolate the area. Collect spill and place in an approved chemical waste container. Avoid generating dust. Do not allow the spilled material to enter into sewers or waterways.

SECTION 7: HANDLING AND STORAGE

- Handling** : Avoid contact with eyes, skin, or clothing. Avoid breathing dust. Use with adequate dust control. Wash thoroughly after handling. Do not permit eating, drinking, or smoking near material. Ground all metal equipment in contact with dry material.
- Storage** : Store the product indoors in air-tight containers and with adequate ventilation in storage area. Protect product from light. Keep away from hazardous materials, pests and other possible sources of contamination. Keep containers upright, securely closed, protected from heat, sources of ignition and physical damage.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- Occupational Exposure Standards** : Not listed.
- Engineering Control Measures** : Use adequate ventilation. The use of both general and local ventilation is recommended.
- Respiratory Protection** : Use an approved high efficiency particulate dust respirator.
- Hand Protection** : Wear rubber, or vinyl gloves when handling.
- Eye Protection** : Wear safety glasses / goggles.
- Skin Protection** : Avoid skin contact. Wear prescribed garments including gloves to protect exposed skin and to ensure product quality is unadulterated. Wash thoroughly after handling. Showering after work is recommended.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Physical State** : Crystalline powder.
- Colour** : White or almost white.
- Odour** : Essentially Odourless.
- Boiling Point (°C)** : N/A
- Flash Point (°C)** : N/A
- Water Solubility** : Soluble in water.
- Melting Point** : 156-157°C.
- Vapour Density (Air=1)** : N/A
- Vapour Pressure** : N/A

SECTION 10: STABILITY AND REACTIVITY

Stability	: Stable.
Conditions to Avoid Instability	: Follow manufacturers storage instructions in section 7.
Materials to Avoid Incompatibility	: Alkalis.
Hazardous Decomposition Products	: Emits toxic fumes when heated under fire conditions and/or when heated to decomposition.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity-Oral	: Mouse LD ₅₀ = 100 ^{mg} /kg, Rat LD ₅₀ = 255 ^{mg} /kg.
Acute Toxicity-Dermal	: No data available.
Acute Toxicity-Inhalation	: No data available.
Eye Irritation	: No data available.
Skin Irritation	: No data available.
Skin Sensitisation	: No data available.
Health Warnings	: No data available.
Medical Symptoms	: No data available.
Acute and Chronic Health Hazards	: Full Toxicity data not available. Possible allergic reaction to dust if inhaled, ingested, or in contact with skin. Acute effects, eye, skin, or respiratory tract irritation. Chronic effects; possible hypersensitisation. (immediate medical attention required).

SECTION 12: ECOLOGICAL INFORMATION

Mobility	: No data available.
Persistence / Degradability	: No data available.
Bioaccumulation	: No data available.
Ecotoxicity	: Prevent product from entering sewers, watercourses, or low areas, as it may be toxic to fish life. Product is very soluble in water.

SECTION 13: DISPOSAL CONSIDERATIONS

Precautions	: Dust can be irritating to skin, eyes, or if inhaled. Avoid contact (see section 6).
Product/Waste Disposal	: Incinerate product and any contaminated packing in approved equipment. Dispose of waste in accordance with all applicable federal, state, and local laws.
Container Disposal	: Dispose in a manner consistent with local regulations.

SECTION 14: TRANSPORT REGULATIONS

Proper Shipping Name (Road, Rail, Sea & Air)	Toxic Solid, Organic, N.O.S.
UN Number (Road, Rail, Sea & Air)	: 2811
Hazard Class (Road, Rail, Sea & Air)	: Class 6.1
Packing Group (Road, Rail, Sea & Air)	: III
ADR classification code	: T2
Required Hazard (Danger) labels	Label No. 6.1
ADR/RID Kemler Number (Hazard identification number, Road & Rail)	: 60
IMDG Marine Pollutant	: No

SECTION 15: REGULATORY INFORMATION

EC Label Name	: Orphenadrine Hydrochloride
EC Classification	: Toxic
EC Symbols	: T
EC Risk Phrases	: R25 Toxic if swallowed. R39 Danger of very serious irreversible effects. 20/21 Harmful by inhalation and in contact with skin.
EC Safety Phrases	: S22 Do not breathe dust. S24/25 Avoid contact with skin and eyes. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28 After contact with skin, wash immediately with plenty of water. S62 If swallowed, do not induce vomiting, seek medical advice immediately and show this container or label. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S38 In case of insufficient ventilation, wear suitable respiratory equipment.
EINECS (EC)	: 206-435-4

SECTION 16: OTHER INFORMATION

- Training** : Train all personnel handling product in safe handling procedures as per this Material Safety Data Sheet.
- Notice** : This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.