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Material Safety Data Sheet

(RealChem 226)

 RealChem Northwest REALISTIC CHEMICAL SOLUTIONS FOR INDUSTRY P.O. BOX 53323 BELLEVUE, WA 98015-3323 Emergency Phone Number: (800) 535-5053	Date Prepared: October 28, 2003 Revision Date: July 8, 2005 INFOTRAC: 800-535-5053 Product Number: WCRT1GM-SF Control Number:
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SECTION I - IDENTIFICATION

Product Name:	RealChem 226
Synonyms:	None
Chemical Family:	Neutralizing Amine
Formula:	Proprietary
Product Description:	Condensate Treatment

SECTION II - HAZARDOUS INGREDIENTS

Hazardous Ingredient	Percent	CAS Number	PEL
Cyclohexylamine	>1%	108-91-8	10 mg/m ³
Morpholine	>1%	110-91-8	20 mg/ m ³
Diethylethanolamine	>1%	100-37-8	10 mg/ m ³

SECTION III - PHYSICAL/CHEMICAL DATA

Form:	Liquid
Color:	Colorless
Odor:	Amine
Boiling Point:	133-134 °C @ 760 mmHg
Freeze Point:	-18 °C @ 760 mmHg
Vapor Pressure:	14 millibars @ 20°C
Vapor Density (Air=1):	3.42
Specific Gravity:	0.984
Density lb./gal (kg/L):	8.21 (0.984)
pH(neat):	12.3 to 13.8
pH(1% solution)	11.1 to 12.1
Solubility in Water:	complete
Volatility including Water:	100%
Molecular Weight:	Blend, not applicable

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SECTION IV – FIRE AND EXPLOSION DATA

Flashpoint: Not established
Autoignition: Not Established
Lower Flammability Limit (In Air, %): Not Established
Upper Flammability Limit (In Air, %): Not Established
Extinguishing Media: Water fog or spray, Foam, Dry Powder, Carbon Dioxide (CO₂).
Special Fire Fighting Procedures: Wear NIOSH-approved self-contained breathing apparatus. Use water spray to keep containers cool and to knock down fumes.
Unusual Fire and Explosion Hazards: Dangerous when exposed to heat or flames. Can react with oxidizing materials. Emits toxic gases when heated to decomposition.

SECTION V – REACTIVITY DATA

Stability: Stable under normal conditions.
Hazardous Polymerization: Hazardous polymerization does not occur.
Incompatibility: Mineral Acids
Hazardous Decomposition Products: Carbon dioxide and carbon monoxide; Oxides of Nitrogen

SECTION VI – HEALTH DATA

Threshold Limit Value: 10 mg/m³
OSHA PEL: 10 mg/m³
Listed Carcinogen: This product contains no known or suspected carcinogens.
Medical Conditions Aggravated by Overexposure: Acute Overexposure Effects: This material is corrosive to the body tissues. Skin contact with the liquid or vapors/mists may result in dermatitis and deep burns. Eye contact may result in burns or permanent injury. Inhalation of cyclohexylamine vapors may result in irritation, light-headedness, drowsiness, anxiety, nausea, and vomiting. Cyclohexylamine can be skin absorbed in toxic amounts. Repeated skin exposure may result in sensitization. Chronic Overexposure Effects: Cyclohexylamine has produced embryotoxicity, low birth count, post-natal mortality, and decreased body weight in laboratory animals at high doses. Cyclohexylamine hydrochloride was administered in the diet to mice and rats for 13 weeks, at 400 mg/kg/day. After 7 and 13 weeks, rats exhibited testicular atrophy; mice showed no evidence of testicular damage. Repeated inhalation exposures up to 700 mg/m³ have been known to produce effects on the lungs and kidneys in experimental animals.
Inhalation: Breathing mist or spray may cause damage to the upper respiratory tract and lung tissue.
Ingestion: Causes severe burns to mucous membranes of the mouth, throat, esophagus, and stomach.
Eyes: Causes eye burns

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Skin (Dermal): Causes severe burns with deep ulceration.

SECTION VII – FIRST AID

Breathing (Inhalation): Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Immediate medical attention is required.

Swallowing (Ingestion): Clean mouth with water, and afterwards drink plenty of water. If swallowed, seek medical advice immediately and show the doctor the container, label, or msds. Do not induce vomiting. Never give anything by mouth to an unconscious person. If a person vomits while lying on his back, place him in the recovery position.

Eyes: Remove contact lenses. Gently flush the eyes and surrounding areas, including under the eyelids, with lukewarm water for 15 minutes. If irritation persists, seek medical attention.

Skin (Dermal): Immediately wash the affected area with soap and water as a precaution. Get medical if skin irritation persists.

SECTION VIII – EMPLOYEE PROTECTION

Respiratory Protection: NIOSH approved organic vapor mask

Eye Protection: Chemical goggles. Always be aware of proximity of eye wash station.

Protective Gloves: Neoprene, rubber, or PVC gloves with gauntlets.

Protective Clothing: Neoprene, rubber or PVC boots and rain suit.

Ventilation Requirements: Adequate ventilation must be provided to maintain air concentration below the OSHA PEL.

Work/Hygiene Practices: An emergency eye wash and safety shower for first aid treatment of potential chemical burns should be available in the vicinity of exposure from any material release. Avoid contact with the skin, and breathing vapor, mists, or dusts. Do not eat, drink or smoke in the work area. Wash hands thoroughly before eating, drinking, smoking, chewing, or using the restroom facility.

Additional Measures: None known.

SECTION IX – SPILL AND DISPOSAL DATA

Spill: Stop the source of the leak. Contain the spilled material with dikes, sandbags, and prevent run-off into surface waters or sewers. Clean or recover as much material as possible by using a vacuum or pump. Neutralize any remaining traces of material with any dilute inorganic acid such as hydrochloric, sulfuric, phosphoric, or acetic acid. The spill area should then be flushed with water followed by covering with sodium bicarbonate. Spills on dirt or sandy ground may be handled by removing the affected soils and placing them in approved containers. All clean-up material should be placed in approved containers, labeled and stored in a safe place prior to treatment or disposal. Caution: strong alkaline solutions may react violently with acids and water.

Waste Disposal: Hazardous Waste. Follow Federal and State Regulations.

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RCRA Status: No data available

SECTION X – TRANSPORTATION DATA

DOT Shipping Name: Corrosive Liquids, n.o.s., (Cyclohexylamine and Morpholine), 8,
UN1760, PGII
DOT Hazard Label(s): Corrosive
DOT Hazard Placard(s): Corrosive
DOT Hazard Class: 8
UN/NA Number: UN1760
Packaging Group: II
Reportable Quantity: Not Est
Emergency Response Guide Number: Unknown

SECTION XI – OTHER REGULATORY INFORMATION

TSCA Status: All components listed in TSCA inventory.
SARA Section 302: No data available
SARA Section 311: No Data Available
SARA Section 312: No data available
Sara Section 313: Not listed, No Threshold Amount
Clean Air Act: No data available
FDA: Acceptable for use in food processing plants as determined in 21CFR
Section 173.310, Food and Drug.
USDA: Authorized by USDA for use in federally inspected meat and poultry
plants.
HMIS Health: 3
HMIS Flammability: 3
HMIS Reactivity: 0
HMIS Personal Protection: H

SECTION XII – HANDLING AND STORAGE

Storage Requirements: Store in closed, properly labeled tanks or containers.
Handling Procedure: Store in a cool place away from ignition sources.
Conditions to avoid: Avoid extreme temperatures. Protect from freezing.

SECTION XIII – TOXICOLOGICAL AND ECOLOGICAL INFORMATION

Toxicity: Oral LD50, Rat - 300 mg/kg; very toxic (as cyclohexylamine)
Toxicity: Dermal LD50, Rabbit - 280 mg/kg; moderately toxic (as
cyclohexylamine)
Toxicity: Primary Skin Irritation - Rabbit; Corrosive (as cyclohexylamine)

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Aquatic Toxicity Study:	Golden Orfe, static 96 hour LC50 - 58 to 195 mg/l; practically non toxic (as cyclohexylamine)
Aquatic Toxicity Study:	Daphnia Magna, 24 hr EC/LC50 - 49 to 80 mg/l; slightly toxic (as cyclohexylamine)
Aquatic Toxicity Study:	Algal, 96 hour EC50 - 20 mg/l; slightly toxic (as cyclohexylamine)
BOD:	Biological Oxygen Demand, 5 day - 1880 mg O ₂ /g (as cyclohexylamine)
COD:	No data available (as cyclohexylamine)

SECTION XIV – ADDITIONAL INFORMATION

Additional: This product is NOT listed in Proposition 65, California Safe Drinking Water and Toxic Enforcement Act of 1986.

ABBREVIATIONS

ACGIH=American Conference of Governmental Industrial Hygienists
OSHA=Occupational Safety and Health Administration
TLV=Threshold Limit Value
PEL=Permissible Exposure Limit
TWA=Time Weighted Average
STEL=Short-Term Exposure Limit

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