UNITED 311



MATERIAL SAFETY DATA SHEET

PHYSICAL HAZARD (0 = Maximum Safety)

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To Reorder Call: 800-323-2594

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1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME UNITED 311 STEAMMATE USE/DESCRIPTION Steam and Return Line Treatment

HMIS III HEALTH (0 = Maximum Safety)

Always follow Label Directions and Cautions. * Chronic 2 Moderate 4 Severe 1 Slight 3 Serious 0 Minimal See Hazards Identification Section of this MSDS for more detailed information.

FLAMMABILITY (0 = Maximum Safety)

Susceptibility of Material to Burning. 4 Extremely flammable 1 Must be preheated 3 Ignites at normal temperature. to burn. 2 Ignites when moderately heated. 0 Will not burn.

materials are exposed to fire. 3 Strong shock of heat may detonate-use monitors from behind explosion resistant barriers.

4 May detonate-vacate area if

Susceptible to Release of Energy. 2 Violent chemical change possible-use hose stream . from distance

FOR MEDICAL AND TRANSPORTATION EMERGENCIES 24 Hour INFOTRAC (US and CANADA): 800-535-5053

REVISION DATE

March 3, 2011

- 1 Unstable if heated-use
- precaution. 0 Normally stable.

PERSONAL PROTECTION: N & P

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS#	%Range	ACGIH (TLV-TWA)	OSHA (PEL-TWA)	LD50 (Species/Route)	LC50 (Species)
Morpholine	110-91-8	10-30	Skin: 20 ppm Skin:70 mg/ m3	Skin: 20 ppm Skin: 70 mg/ M3	1,050 mg/kg (Rat/oral)	8,000 ppm/ 8 hr (Rat)

3. HAZARDS IDENTIFICATION

Eyes: Causes severe irritation and chemical burns.

Skin: Causes irritation and possible tissue destruction. Contains a known skin sensitizer. Contact may cause an allergic skin reaction of sensitive exposed person.

Inhalation: Vapors or mist are irritating and cause nasal discharge, coughing, and discomfort in the nose, and throat.

If Swallowed: Causes irritation or chemical burns of the mouth, throat, and stomach with abdominal and chest pain, nausea, vomiting and diarrhea.

4. FIRST AID MEASURES

Eves: Flush with plenty of cool water for at least 15 minutes while holding evelids apart while flushing to rinse entire surface of eve and lids with water. Do not attempt to neutralize with chemical agents. Call a physician or poison center immediately.

Skin: Immediately remove contaminated clothing and shoes. Flush skin thoroughly with large amounts of running water for at least 15 minutes. If irritation persists, call a physician or poison center. Do not attempt to neutralize with chemical agents. Decontaminate clothing and shoes before reuse.

Inhalation: Remove patient to fresh air immediately. Apply CPR if needed. Call a physician or poison center immediately. If breathing is difficult, give oxygen.

Ingestion: DO NOT induce vomiting. If conscious, give patient several glasses of water to dilute stomach contents and call a physician or poison center immediately. Never give anything by mouth to an unconscious person. If vomiting occurs, give fluids again.

5. FIRE FIGHTING MEASURES

Flash Point (TCC): 144F/62.2C

Explosive Limits: Lower (LEL): 1.8 Upper (UEL): 10.8

Flame Projection (Aerosol): N/A

Hazardous Products of Combustion: When strongly heated, as in a fire, this product may produce oxides of carbon, ammonia, nitrogen, aldehydes and ketones.

Fire and Explosion Hazards: Sealed containers may rupture due to pressure build-up, greatly increasing the hazard. Water spray should be used to keep containers cool.

Extinguishing Media: Water spray, Dry chemical, Alcohol foam, Carbon dioxide. Water may be ineffective on flames but should be used to keep containers cool.

Fire Fighting Instructions: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus. This product will produce toxic vapors in a fire.

6. ACCIDENTAL RELEASE MEASURES

Small Spills: Ventilate area. Eliminate all sources of ignition. Clean up with a non-flammable sorbent such as clay or vermiculite and place in a labeled, closed metal container for proper disposal.

Large Spills: Ventilate area. Eliminate all sources of ignition. Clean up with a non-flammable sorbent such as clay or vermiculite and place in a labeled, closed metal container for proper disposal.

7. HANDLING AND STORAGE

Keep container tightly closed when not in use. Store in a cool, dry place away from sources of ignition. Do not store in unlabeled or mislabeled containers. Wash hands and face with soap and water after handling this product. Remove contaminated clothing immediately and launder thoroughly before reusing. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Chemical safety goggles recommended.

Skin: Chemical resistant gloves recommended.

Respiratory: None required if good ventilation is maintained. If TLV is exceeded, use a NIOSH/MSHA approved respirator. **Engineering Controls:** Provide adequate ventilation and local exhaust is generally adequate. **Other Protective Clothing or Equipment:** Shirts with long sleeves, or lab coats, or coveralls recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:>212°F/>100°CSpecific Gravity:1.01 (H2O=1)Vapor Pressure:NDMelting Point:NDVapor Density:3.0Evaporation Rate:`1.00 (Water=1)Solubility in Water:CompletepH:10.5 -11.5Appearance and Odor:Colorless liquid with amine odor.

10. STABILITY AND REACTIVITY

 Hazardous Polymerization:
 Will not occur.

 Hazardous Decomposition:
 When heated strongly, as in a fire, this product may produce ammonia, oxides of carbon, nitrogen, aldehydes, and ketones.

 Chemical Stability:
 Stable

 Incompatibility:
 Avoid strong acids and strong oxidizers.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity (NTP/IARC/OSHA): None

California Proposition 65: Does this product contain chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm? None

12. ECOLOGICAL INFORMATION

ND

13. DISPOSAL CONSIDERATIONS

Consult your local, state, provincial, and federal regulations for proper disposal guidelines. Disposal regulations may be different for each state and/or locality.

14. TRANSPORT INFORMATION

DOT: Available upon request **TDG:** Available upon request **UN:** Availabale upon request

15. REGULATORY INFORMATION

VOC (Volatile Organic Compounds): 20% TSCA (Toxic Substances Control Act): Listed SARA Title III Section 302 EHS: ND SARA Title III Section 311/312: ND SARA Title III Section 313 Toxic Chemicals: None WHMIS Classification:

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations/ WHMIS) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Read and follow all label directions and precautions before using this product. These products are intended for industrial and institutional use only. NOT FOR HOUSEHOLD USE OR RESALE. KEEP OUT OF REACH OF CHILDREN.

UNITED 311 STEAMMATE