

# Material Safety Data Sheet

Number: **DMN-84**

Product Name: **Dipping Flux #200, Radex<sup>®</sup>**

Organic soldering flux.

Revised: 12/3/03

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## Section 2 - Composition / Information on Hazardous Ingredients

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Percent</u>	<u>Carcinogen</u>
Hydrogen Bromide	10035-10-6	30 - 45%	No
Monoethanolamine	141-43-5	2 - 10%	No
2-Butoxyethanol	111-76-2	2 - 10%	No

## Section 3 - Hazards Identification

**Emergency Overview:** Liquid is corrosive to the eyes and skin. Excessive inhalation of soldering fumes causes irritation. Product is water based and does not burn. Product should not be allowed into storm sewers and no more than one half-gallon into sanitary sewers. Will release chlorine gas if mixed with bleach. Clear to slightly brown liquid with pungent acidic, irritating odor.

**Health Hazards:** Corrosive

**Physical Hazards:** Reactive

**Primary Routes of Entry:**  Through Skin  Inhalation  Ingestion

### Potential Health Effects:

**Eyes** - causes damage and possible blindness with prolonged contact.

**Skin** - causes irritation, redness at first and with continued contact serious burns and possible skin damage.

**Swallowing** - causes damage to mucous membranes, gastrointestinal burns.

**Breathing** - excessive inhalation of soldering fumes causes irritation of the mouth, nose, throat and respiratory passages.

## Section 4 - First Aid Measures

**Eye Contact:** Immediately flush eyes with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention immediately.

**Skin Contact:** For brief contact, or contact with diluted product, immediately wash exposed skin with soap and water. For longer contact or when redness or irritation are present, flush the exposed skin with running water for 15 minutes. Remove contaminated clothing and shoes. If redness, irritation or other symptoms exist after flushing, get medical attention immediately. Wash clothing before reuse.

**Inhalation:** Move the affected person to fresh air. If irritation, coughing or other symptoms persist, get medical attention immediately.

**Ingestion:** If the product is swallowed, do NOT induce vomiting. If the affected person is conscious, give a glass of water or milk to drink. Treat for shock by keeping the person warm and quiet. Get medical attention immediately.

## Section 5 - Fire-Fighting Measures

**Flash Point:** None (ASTM D-56 closed cup)

**Lower Explosive Limit:** Not Applicable

**Upper Explosive Limit:** Not Applicable

**Extinguishing Media:** Any

**Special Fire Fighting Procedures:** None.

**Unusual Fire And Explosion Hazards:** Contact with reactive metals may form hydrogen gas.

## Section 6 - Accidental Release Measures

**Steps To Be Taken If Material Is Released Or Spilled:** Use adequate personal protective equipment. Clean up small spills with a rag or mop. Wash the area with an alkaline detergent or a 50% solution of baking soda. Spills of 1 quart or less can be washed to the sanitary sewer with plenty of water. Larger spills should be covered with sodium carbonate (soda ash) or slaked lime. Gather up the residual solids in a clean drum for proper disposal. Wash the remaining material to a sanitary sewer with a large amount of water.

## Section 7 - Handling and Storage

Empty containers retain product residue and may be hazardous. Observe all precautions given in this data sheet and on the label. Keep container closed.

Adding acid to water generates heat. Add slowly. Never add water to acid.

If this product contacts bleach or a cleaner containing bleach, it could produce a dangerous gas (chlorine). If your facility uses bleach, or a cleaner containing bleach, look at the MSDS on the bleach product now, to learn what to do if chlorine is accidentally produced. Your facility should decide upon the appropriate emergency action plan for accidental release of chlorine as a part of your emergency preparedness plan. Contact Damon Industries if more information is needed.

**Section 8 - Exposure Controls / Personal Protection**

Ingredient	C.A.S. No.	Percent	TWA	STEL	Ceiling
Hydrogen Bromide	10035-10-6	30 - 45%	3 ppm(1)	-	3 ppm(2,3,4)
Monoethanolamine	141-43-5	2 - 10%	3 ppm(1)	6 ppm(2,3,4)	-
2-Butoxyethanol	111-76-2	2 - 10%			
TWAs: 50 ppm(1), 5 ppm(2), 20 ppm (3) , 25 ppm (4)			STEL: 75 ppm(4)		

(1)=OSHA (2)=NIOSH (3)=ACGIH (4)=CANADA TWA=8 hr Time Weighted Average STEL=15 minute TWA Ceiling=Instantaneous

**Ventilation:** Good room ventilation for small and short-term use. Use mechanical exhaust for larger and long-term uses to maintain airborne concentrations below the exposure limits.

**Respiratory Protection:** If the exposure limit will be exceeded or fumes are irritating during use, wear a NIOSH approved respirator with an acid vapor cartridge.

**Protective Gloves:** Use rubber or latex gloves. Do not use disposable latex gloves. Disposable Nitrile gloves are good.

**Eye Protection:** Wear safety glasses with side shields or chemical goggles or face shield.

**Other Protective Equipment:** If splashing is likely to occur, wear aprons, protective clothing or boots as the situation calls for. Nylon clothing may be ruined by contact.

**Section 9 - Physical and Chemical Properties**

**Boiling Point:** 259° F. **Vapor Pressure:** 8 mm Hg @ 68° F.  
**Specific Gravity:** 1.16 **Vapor Density:** 2.7 (Air = 1)  
**Percent Volatiles:** 100% **Evaporation Rate:** < 1 (Water = 1)  
**Solubility In Water:** Complete **pH:** 1.0 ± 0.5  
**Appearance and Odor:** Clear to slightly brown liquid with pungent acidic, irritating odor.

**Section 10 - Stability and Reactivity**

**Incompatibility:** Alkalis, bleach, oxidizers, reactive metals. **Hazardous Decomposition Products:** None

**Section 11 - Toxicological Information**

**Target Organs:** None.

**Section 12 - Ecological Information**

Do not dispose of in the environment.

**Section 13 - Disposal Considerations**

**Waste Disposal Method:** Up to 1 quart may be washed to the sanitary sewer with a large amount of water. Larger amounts should be neutralized to within the pH limits of your waste water system and then disposed of in the sanitary sewer. Check local regulations to see if hazardous waste disposal is required. Avoid discharge to natural waterways.

**Section 14 - Transport Information**

**D.O.T. Hazard Class:** ??

**Section 15 - Regulatory Information**

The components of this product are on the TSCA inventory of chemical substances.

**Section 16 - Other Information**

**NFPA:** H:3 F:0 I:0 **HMIS® III:** H:3 F:0 P:1 These ratings estimates are to be used only with a fully implemented training program in the workplace. NFPA® is a mark registered by the NFPA. HMIS® is a mark registered by the NPCA.

Replaces sheet dated 2/14/90. Converted to ANSI format.

The information accumulated herein is believed to be accurate but is not warranted to be. Recipients are advised to confirm in advance that the information is current, applicable, and suitable to their circumstances.