



MATERIAL SAFETY DATA SHEET

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FORMULA 991

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SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: FORMULA 991
GENERAL USE: Descaler, deruster, protein remover
PRODUCT DESCRIPTION: Powdered acid cleaner
GENERIC INGREDIENTS: Sulfamic acid, corrosion inhibitor, dye

EMERGENCY TELEPHONE NUMBERS: **PENETONE 201-567-3000**
CHEMTREC 800-424-9300

SECTION 2 HAZARDOUS INGREDIENT SECTION

This product is hazardous as defined in 29 CFR1910.1200.

OSHA HAZARD: CORROSIVE

OSHA HAZARDOUS INGREDIENTS

	CAS#	EXPOSURE LIMITS 8 hrs. TWA (mg/m ³)		Supplier
		OSHA PEL	ACGIH TLV	
Sulfamic acid	5329-14-6	not established	not established	1

SECTION 3 HEALTH INFORMATION & PROTECTION

EMERGENCY OVERVIEW:

Purple powder with characteristic odor.
Can be corrosive to skin and eyes.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT:

Corrosive to the eyes on contact only.

SKIN CONTACT:

Frequent or prolonged contact may irritate, cause dermatitis, or cause burns. Skin contact may aggravate an existing dermatitis condition.

INHALATION:

Inhalation of powder may cause irritation or burns to the respiratory tract.

INGESTION:

Ingestion may cause irritation or burns to the digestive tract.

FIRST AID MEASURES:

EYE CONTACT:

Flush eyes with large amounts of water. See physician immediately.

SKIN CONTACT:

Flush skin with large amounts of water. Remove contaminated clothing and laundry before reuse. If skin irritation develops or persists, consult physician.

INHALATION:

Remove person to fresh air. Administer oxygen or artificial respiration as needed. Call a physician immediately.

INGESTION:

If swallowed, give plenty of water or milk. DO NOT INDUCE VOMITING. Call a physician immediately.

WORKPLACE EXPOSURE CONTROLS:

PERSONAL PROTECTION:

Splash proof goggles are recommended for all workplace conditions. Rubber gloves are recommended. After dilution and when spraying this product, rubber boots, aprons, gauntlets, or rain gear should be worn depending on operations.

VENTILATION:

None needed under normal use conditions. If dust is present, dust mask or particle respirator is recommended. After dilution and when spraying this product, a dust mask or particle respirator is recommended. After dilution, DO NOT MIST THIS PRODUCT. Use coarse spray only.

SECTION 4 FIRE & EXPLOSION HAZARDS

FLASH POINT: None

FLAMMABLE LIMITS: Not applicable

AUTOIGNITION TEMPERATURE: Not applicable

GENERAL HAZARD:

This is a powder and presents no unusual hazards in a fire.

FIRE FIGHTING:

Cool containers with water.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, fumes, and oxides of nitrogen and sulfur.

SECTION 5 SPILL CONTROL MEASURES

LAND SPILL:

Sweep up powdered material. Put all material into proper waste disposal container with lid tightly covered. Rinse area with plenty of water and neutralize rinse water.

WATER SPILL:

Product is a powder and will dissolve in water. Undissolved powder should be recovered if possible. Surfactants used in this product are biodegradable. Localized high concentration of product may cause fish kills, but no persistent or long term effects will result. Check with local environmental regulatory agencies for reporting requirements.

SECTION 6 HANDLING & STORAGE

STORAGE TEMPERATURE, °F: ambient. DO NOT STORE ABOVE 120° F.

GENERAL: Do not store near strong bases.

SECTION 7 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT, °F:

not applicable

EVAPORATION RATE, Acetone = 1:

not applicable

SOLUBILITY IN WATER:

soluble

SPECIFIC GRAVITY at 75°F:

not applicable

ODOR AND APPEARANCE:

purple powder with characteristic odor

VAPOR PRESSURE, mm Hg at 20°C:

not applicable

VAPOR DENSITY (Air = 1):

not applicable

WT% ORGANIC VOLATILES:

0

pH:

not applicable

1% solution = 1-2

SECTION 8 REACTIVITY DATA

GENERAL:

This product is stable and hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong bases. Addition of strong bases or water to this product may generate large amounts of heat and may cause splattering.

SECTION 9 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):**PROPER SHIPPING NAME:**

CORROSIVE SOLID, N.O.S.
(contains sulfamic acid)

HAZARD CLASS: 8

IDENTIFICATION NUMBER: UN 1759

PACKING GROUP: III

LABEL: CORROSIVE

FLASH POINT: Not applicable

pH: Not applicable; 1% solution = 1-2

TSCA: The ingredients in this product are listed on the TSCA inventory.

CERCLA:

This product contains no reportable CERCLA materials. Contact local authorities to determine if there may be other local reporting requirements

RCRA HAZARD CLASS:

D002 Corrosive hazardous waste

SARA TITLE III:

311/312 HAZARD CATEGORIES:

Acute health

313 REPORTABLE INGREDIENTS:

None

NEW JERSEY RIGHT-TO-KNOW INFORMATION:

This product contains sulfamic acid (CAS# 5329-14-1)

CALIFORNIA PROPOSITION 65 INFORMATION:

This product does not contain any chemicals recognized by the state of California to cause cancer and/or birth defects or reproductive harm.

SCAQMD INFORMATION:

Is there a photochemically reactive material present? No
 What is the % by volume of photochemically reactive material? 0
 What is the VOC content? 0
 What is the vapor pressure of VOC's? 0

SECTION 10 NOTES

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	2	2
FLAMMABILITY	0	0
REACTIVITY	1	1

KEY
 4 = Severe
 3 = Serious
 2 = Moderate
 1 = Slight
 0 = Minimal

REVISION SUMMARY:

Change in header

SUPERSEDES ISSUE DATE:

October 10, 2001

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR SALES ENGINEER
 FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 201-567-3000

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