

MATERIAL SAFETY DATA SHEET

Richardson Chemical Co.
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Milwaukee, WI 53224

GENERAL INFORMATION NUMBER: 414-354-6417
CHEMTREC: (800) 424-9300

REVISION DATE: May 31, 2005
DATE OF ISSUE: June 13, 2005

I - Product Identification

Double Duty

PRODUCT CODE: 0772

CHEMICAL FORMULATION: Liquid acidic cleaner.

NFPA HAZARD IDENTIFICATION SYSTEM: HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0
HAZARD RATING: 4 - Extreme; 3 - High; 2 - Moderate; 1 - Slight; 0 - Insignificant

II - Hazardous Ingredients

Values reported as TWA unless noted.

SUBSTANCE	APPROX %	OSHA PEL	ACGIH TLV	EPA 40 CFR:			CAS #
				302	355	372	
Citric acid	10.0-20.0	N/E	N/E	N	N	N	77-92-9
Alkylbenzene Sulfonic Acid	1.00-5.00	N/E	N/E	N	N	N	68584-22-5
Poly (oxyethylene) nonylphenol	< 2.00	N/E	N/E	N	N	N	9016-45-9

Key: PEL: Permissible Exposure Limit TLV: Threshold Limit Value C: Ceiling level STEL: Short Term Exposure Limit
N/A: Not Applicable N/D: Not Determined N/E: Not Established Y: Yes N: No
302: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4).
355: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).
372: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372).

III - Physical Data

BOILING POINT (°F): N/D SPECIFIC GRAVITY (WATER = 1): 1.07
VAPOR PRESSURE (mm Hg): N/D VOC CONTENT (% by weight): N/D
VAPOR DENSITY (AIR = 1): N/D EVAPORATION RATE (WATER = 1): N/D
SOLUBILITY IN WATER: Soluble pH: 1.50-2.50
APPEARANCE AND ODOR: Clear, brown liquid; detergent odor.

IV - Fire and Explosion Hazard Data

FLASH POINT (°F): N/A (TEST METHOD): Closed cup
FLAMMABLE LIMITS IN AIR (VOLUME %) UPPER: N/A LOWER: N/A
EXTINGUISHING MEDIA: Water, foam, carbon dioxide, dry chemical.
SPECIAL FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water fog. Firefighters should be equipped with full protective gear including self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARD: None

V - Reactivity Data

STABILITY: Stable**INCOMPATIBILITY:** Strong alkalis.**CONDITIONS TO AVOID:** None.**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may produce oxides of carbon.**HAZARDOUS POLYMERIZATION:** Will not occur.**CONDITIONS TO AVOID:** None

VI - Health Hazard Data

ROUTES OF ENTRY **INHALATION:** X **EYE CONTACT:** X **SKIN CONTACT:** X **INGESTION:** X**INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS:** None**EFFECTS OF OVEREXPOSURE****IF IN EYES:** May cause irritation, redness and tearing.**IF ON SKIN:** May cause irritation, with prolonged or repeated exposure.**IF SWALLOWED:** Nausea, cramps, diarrhea.**IF INHALED:** None known under normal use.**EMERGENCY AND FIRST AID PROCEDURES****IF IN EYES:** Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. If irritation persists, obtain medical attention.**IF ON SKIN:** Flush with water for 15 minutes while removing clothing. If irritation persists, obtain medical attention. Launder clothing separately before reuse.**IF SWALLOWED:** Contact physician or poison control center immediately. Give affected person 1 to 2 glasses of water. Never give anything by mouth to an unconscious person.**IF INHALED:** Remove person to fresh air.

VII - Spill or Leak Protection

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Ventilate area and contain spill. Soak up spilled material with inert absorbent material and place in a properly marked closed container for proper disposal.**WASTE DISPOSAL METHOD:** Consult local environmental authorities.

VIII - Special Protection Information

RESPIRATORY PROTECTION: Use with adequate ventilation.**VENTILATION****LOCAL:** Recommended**MECHANICAL:** Not required**PROTECTIVE GLOVES:** Chemical resistant.**EYE PROTECTION:** Safety glasses.**OTHER PROTECTIVE EQUIPMENT:** None.**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in a cool, dry place away from alkaline materials. Keep container tightly closed when not in use.**OTHER PRECAUTIONS:** Keep out of reach of children.

IX - Transportation Information (ground transportation only)

DOT PROPER SHIPPING NAME: None**DOT CLASS:** None**DOT ID NUMBER:** None**DOT PACKING GROUP:** None

The shipping information listed above applies only to non-bulk (< 119 gallons) containers of this product. This product may have more than one proper shipping name depending on packaging, product properties, & mode of shipment. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may apply.

REVISION DATE: May 31, 2005**Prepared by:** Technical Dept.**DATE OF ISSUE:** June 13, 2005

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