

HACH CO. -- 24158, ULTRA LOW RANGE COD REAGENT 0-40PPM RANGE -- 6810-01-456-4695  
===== Product Identification =====

Product ID:24158, ULTRA LOW RANGE COD REAGENT 0-40PPM RANGE

MSDS Date:02/08/1999

FSC:6810

NIIN:01-456-4695

Status Code:A

MSDS Number: CLHTN

=== Responsible Party ===

Company Name:HACH CO.

Address:5600 LINDBERGH PKY

Box:608

City:LOVELAND

State:CO

ZIP:80538-8902

Country:US

Info Phone N

um:970-669-3050/800-227-4224

Emergency Phone Num:303-623-5716/515-232-2533

Resp. Party Other MSDS Num.:M00524

CAGE:91224

=== Contractor Identification ===

Company Name:HACH CO

Address:5600 LINDBERGH DR

Box:389

City:LOVELAND

State:CO

ZIP:80539

Country:US

Phone:970-669-3050/ 303-623-5716

CAGE:91224

===== Composition/Information on Ingredients =====

Ingred Name:CHROMIC ACID

CAS:13530-68-2

RTECS #:GB2650000

Minimum % Wt:.01

Maximum % Wt:.1

Other REC Limits:NONE RECOMMENDED

OSHA P

EL:0.5 MG CR/M3  
ACGIH TLV:0.05 MG CR/M3

Ingred Name:MERCURIC SULFATE (SARA 313) (CERCLA)  
CAS:7783-35-9  
RTECS #:OX0500000  
Minumum % Wt:.1  
Maxumum % Wt:1.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG (HG)/M3; Z-2  
ACGIH TLV:S,0.025 MG(HG)/M3;96  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:SILVER SULFATE  
CAS:10294-26-5  
Minumum % Wt:.1  
Maxumum % Wt:1.  
Other REC Limits:10 MG/M3 AS MO  
OSHA PEL:0.01 MG AG/M3  
ACGIH TLV:0.01 MG AG/M3

Ingred Name:SULFURIC ACID (SARA 302/313) (CERCLA)  
CAS:7664-  
93-9  
RTECS #:WS5600000  
Minumum % Wt:75.  
Maxumum % Wt:85.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3/3 STEL; 9596  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:WATER  
CAS:7732-18-5  
RTECS #:ZC0110000  
Minumum % Wt:10.  
Maxumum % Wt:20.  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:NOT RELEVANT  
ACGIH TLV:NOT RELEVANT

===== Hazards Identification =====

LD50 LC50 Mixture:LD50 (ORAL, RAT) IS 2140MG/KG  
Routes of Entry: Inhalation:YES Sk

in:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:TARGET ORGANS: CENTRAL NERVOUS SYSTEM, LUNGS, TEETH AND KIDNEYS. CAUSES EYE AND SKIN BURNS. WILL BE ABSORBED THROUGH SKIN. EFFECTS SIMILAR TO THOSE OF INGESTION. INGESTION CAUSES SEVERE BURNS. MAY CAUSE ABDOMINAL PAIN, CIRCULATORY DISTURBANCES, DIARRHEA, LOOSENING OF THE TEETH, NAUSEA, VOMITING, RAPID PULSE AND RESPIRATION, TOXIC NEPHRITIS (INFLAMMATION OF KIDNEYS)

, SHOCK, COLLAPSE, KIDNEY DAMAGE AND DEATH. INHALATION CAUSES SEVERE BURNS. MAY CAUSE DIFFICULTY BREATHING, MOUTH SORENESS, TEETH EROSION. EFFECTS SIMILAR TO INGESTION. MAY CAUSE DESTRUCTION OF CONTACTED TISSUES, LUNGS, TEETH, ACCUMULATION OF SILVER IN BODY TISSUE, CANCER

Explanation of Carcinogenicity:THIS PRODUCT DOES NOT CONTAIN ANY OSHA/NTP LISTED CARCINOGENS.

Effects of Overexposure:SEVERE BURNS, PAIN, DIARRHEA, EROSION OF TEETH, NAUSEA, VOMITING, RAPID PULSE AND R

ESPIRATION, INFLAMMATION OF KIDNEYS, SHOCK, COLLAPSE, DEATH. MOUTH SORES, IRRITATION OF LUNGS, ACCUMULATION OF SILVER IN BODY TISSUES WHICH CAUSES A SLATE-GRAY TO BLUISH DISCOLORATION. CANCER. CHRONIC OVER EXPOSURE MAY CAUSE DESTRUCTION OF ANY TISSUE CONTACTED EROSION OF THE TEETH MOUTH SORENESS CHRONIC IRRITATION OR INFLAMMATION OF THE LUNGS

Medical Cond Aggravated by Exposure:PRE-EXISTING EYE CONDITIONS. SKIN CONDITIONS. RESPIRATORY CONDITIONS.

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= First Aid Measures =====

First Aid:EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. CALL PHYSICIAN. SKIN: WASH SKIN WITH PLENTY OF WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING. CALL PHYSICIAN IMMEDIATELY. INHALED: MOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NECESSARY. CALL PHYSICIAN. INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. CALL PHYSICIAN .

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===== Fire Fighting Measures =====

Flash Point:NONE

Lower Limits:NOT RELEVANT

Upper Limits:NOT RELEVANT

Extinguishing Media:USE MEDIA APPROPRIATE TO SURROUNDING FIRE CONDITIONS.

Fire Fighting Procedures:AS WITH ANY FIRE, WEAR PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS PRESSURE-DEMAND. EVACUATE AREA AND FIGHT FIRE FROM SAFE DISTANCE.

Unusual Fire/Explosion Hazard:CONTACT WITH METALS GIVES OFF HYDROGEN GAS WHICH IS FLAMMABLE. MAY REACT VIOLENT

LY WITH STRONG BASES,  
WATER.

===== Accidental Release Measures =====

Spill Release Procedures:RELEASE OF THIS MATERIAL MAY CONTAMINATE THE ENVIRONMENT. ABSORB SPILLED LIQUID WITH NON-REACTIVE SORBENT MATERIAL. STOP SPILLED MATERIAL FROM BEING RELEASED TO THE ENVIRONMENT. DIKE THE SPILL TO CONTAIN MATERIAL FOR LATER DISPOSAL. DECONTAMINATE AREA WITH COMMERCIALY AVAILABLE MERCURY ABSORBING COMPOUNDS.

Neutralizing Agent:SODA ASH, SODIUM BICARBONATE FOR ACID

===== Handling and Storage =====

Handling and Storage Precautions:PROTECT FROM LIGHT CONTAMINATION BY ORGANIC MATERIALS (WILL AFFECT PRODUCT STABILITY) HEAT. STORE AT 10-30C.

Other Precautions:CORROSIVE AND TOXIC. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. AVOID BREATHING VAPORS/MIST. USE WITH ADEQUATE VENTILATION. MAINTAIN GENERAL INDUSTRIAL HYGIENE PRACTICES WHEN USING THIS PRODUCT. EMPTY CONTAINERS RETAIN RESIDUE. KEEP OUT OF REACH OF CHILDREN. DO NOT INGEST.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE SELF CONTAINED BREATHING APPARATUS PRESSURE DEMAND.

Ventilation:USE FUME HOOD TO AVOID EXPOSURE TO DUST, MIST, VAPOR.

Protective Gloves:DISPOSABLE LATEX

Eye Protection:CHEMICAL SPLASH GOGGLES

Other Protective Equipment:EYEWASH AND SAFETY SHOWER SHOULD BE LOCATED NEARBY. LAB COAT, LABORATORY FUME HOOD.

Work Hygienic Practices:OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES AND

RECOMMENDED PROCEDURES. WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

DO NOT CONTAMINATE ENVIRONMENT. PRECAUTIONARY MEASURES: AVOID CONTACT WITH: EYES SKIN CLOTHING DO NOT BREATHE: MIST/VAPOR WASH THOROUGHLY AFTER HANDLING. USE WITH ADEQUATE VENTILATION. PROTECT FROM LIGHT ORGANIC MATERIALS HEAT KEEP AWAY FROM: ALKALIES METALS OTHER COMBUSTIBLE MATERIALS OXIDIZERS REDUCERS.

===== Physical/Chemical Properties =====

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HCC:C1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:=99.C, 210.2F

Melt/Freeze Pt:=7.C, 44.6F

Vapor Pres:N/D

Vapor Density:N/D

Spec Gravity:1.83

pH: