

HACH CO. -- CITRIC ACID -- 4410-01-183-7442

=====  
Product Identification  
=====

Product ID:CITRIC ACID  
MSDS Date:05/06/1993  
FSC:4410  
NIIN:01-183-7442  
Kit Part:Y  
MSDS Number: BRKTZ  
=== Responsible Party ===  
Company Name:HACH CO.  
Address:5600 LINDBERGH DR  
Box:608  
City:LOVELAND  
State:CO  
ZIP:80539  
Country:US  
Info Phone Num:800-227-4224  
Emergency Phone Num:303-623-5716  
CAGE:91224  
=== Contractor Identifi  
cation ===  
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:CITRIC ACID  
CAS:77-92-9  
RTECS #:GE7350000  
Fraction by Wt: 100%  
Other REC Limits:NONE SPECIFIED

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

LD50 LC50 Mixture:ORAL RAT LD50 6730 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:

YES

Reports of Carcinogenicity:NTP:UNKNOWN IARC:UNKNOWN OSHA:NO  
Health Hazards Acute and Chronic:PRODUCT IS IRRITATING TO EYES, SKIN  
AND RESPIRATORY TRACT

Effects of Overexposure:CAUSES SEVERE EYE AND MODERATE SKIN IRRITATION.  
MAY CAUSE RESPIRATORY TRACT IRRITATION. CHRONIC OVEREXPOSURE MAY  
CAUSE EFFECTS DUE TO THE ABILITY OF CITRIC ACID TO CHELATE METALS,  
WHICH COULD IMPAIR THE BODY'S ABILITY TO ABSORB CALCIUM AND IRON.

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

=====  
===== First Aid Measures =====

First Aid:EYE AND SKIN CONTACT: IMMEDIATELY FLUSH EYES WITH WATER FOR  
15 MINUTES. CALL PHYSICIAN. SKIN: FLUSH WITH PLENTY OF WATER.  
INGESTION: GIVE LARGE QUANTITIES OF WATER. CALL A PHYSICIAN  
IMMEDIATELY. INHALATION: REMOVE TO FRESH AIR.

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

Flash Point:NONE

Autoignition Temp:Autoignition Temp Text:NONE

Ext

Extinguishing Media:WATER, CARBON DIOXIDE, OR DRY CHEMICAL

Fire Fighting Procedures:NONE SPECIFIED BY MANUFACTURER.

Unusual Fire/Explosion Hazard:POTENTIALLY EXPLOSIVE REACTION WITH METAL  
NITRATES.

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

Spill Release Procedures:SCOOP SPILLED MATERIAL INTO A BEAKER AND  
DISSOLVE WITH WATER. NEUTRALIZE TO A PH BETWEEN 6 AND 9 WITH ALKALI  
SUCH AS SODA ASH. FLUSH NEUTRALIZED WASTE TO THE DRAIN WITH AN  
EXCESS OF WATER.

Neutra

lizing Agent:SODA ASH

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

Handling and Storage Precautions:STORE IN COOL, DRY, WELL VENTILATED  
AREA. PROTECT FROM PHYSICAL DAMAGE. AVOID ANY PHYSICAL CONTACT.  
KEEP CONTAINERS TIGHTLY CLOSED

Other Precautions:WASH THOROUGHLY AFTER HANDLING. DO NOT BREATHE DUST.  
USE ONLY WITH ADEQUATE VENTILATION. KEEP AWAY FROM OXIDIZERS. AVOID  
CONTACT WITH SKIN AND EYES.

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

=====

Respiratory Protection:NONE SPECIFIED BY MANUFACTURER.

Ventilation:ADEQUATE VENTILATION

Protective Gloves:RUBBER

Eye Protection:LAB GRADE GOGGLES

Other Protective Equipment:EYE WASH, SAFETY SHOWER, LAB COAT OR APRON

Work Hygienic Practices:USE NORMAL CHEMICAL HYGIENE PRACTICES.

Supplemental Safety and Health

KEY 1: HCC T-6. THIS ITEM IS PN IND B OF A 3 PART KIT. SEE PN IND A AND C UNDER THIS NSN AND CAGE FOR ADDITIONAL INFO. FOR THE KIT.

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

HCC:T6

Melt/Freeze Pt:M.P/F.P Text:307F/153C

Spec Gravity:1.54

Solubility in Water:APPRECIABLE

Appearance and Odor:COLORLESS CRYSTALS; NO ODOR. PH 0.IN SOLN = 2.2

===== Stability and Reactivity Data =====

OXIDIZERS. POTENTIALLY EXPLOSIVE REACTION ON CONTACT WITH METAL NITRATES.

Stability Condition to Avoid:EXPOSURE TO FLAMES AND MOISTURE

Hazardous Decomposition Products:EMITS ACRID SMOKE AND FUMES IN FIRE.

===== Disposal

Considerations =====

Waste Disposal Methods:DISPOSE IN ACCORDANCE WITH FEDERAL, STATE, LOCAL REGULATIONS.

=====

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability

ty for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.