

EASTMAN KODAK CO. -- 146 3108 HYDROQUINONE -- 6750-00-664-8269

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

Product ID:146 3108 HYDROQUINONE

MSDS Date:06/16/1999

FSC:6750

NIIN:00-664-8269

MSDS Number: BFKTY

=== Responsible Party ===

Company Name:EASTMAN KODAK CO.

Address:343 STATE STREET

City:ROCHESTER

State:NY

ZIP:14650

Country:US

Info Phone Num:716-724-4501/PACK=JOHN 716-588-3559

Emergency Phone Num:716-7

22-5151(72)/FAX 716-724-9656

Preparer's Name:NOT PROVIDED

CAGE:19139

=== Contractor Identification ===

Company Name:EASTMAN KODAK CO GOVERNMENT MARKETS CONTRACTS

Address:343 STATE ST

Box:City:ROCHESTER

State:NY

ZIP:14650-1115

Country:US

Phone:716-722-5151/(800) 242-2424

CAGE:19139

Company Name:EASTMAN KODAK CO US CUSTOMER SERVICE/GOVERNMENT SALES

Address:800 LEE RD

Box:City:ROCHESTER

State:NY

ZIP:14650-3129

Country:US

Phone:800-828-6203

CAGE:5K871

=====
Composition/Information on Ingre

dients =====

Ingred Name:HYDROQUINONE

CAS:123-31-9

RTECS #:MX3500000

= Wt:100.

Other REC Limits:NOT PROVIDED

OSHA PEL:2 MG/M3

ACGIH TLV:2 MG/M3

EPA Rpt Qty:1 LB

DOT Rpt Qty:1 LB

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

LD50 LC50 Mixture:ORAL RAT LD50 IS 400 MG/KG

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

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

Health Hazards Acute and Chronic:HYDROQUINONE IS GENERALLY NEGATIVE IN BACTERIAL M

UTAGENICITY TESTS; THERE IS EVIDENCE FOR THE

CLASTOGENICITY (CHROMOSOME BREAKAGE) OF HYDROQUINONE IN VIVO AND IN VITRO. THE RELEVANCE OF THE CHROMOSOMAL EFFECTS IN TEST ANIMALS IN PREDICTING HUMAN RISK IS UNCLEAR. INHALATION: HARMFUL IF INHALED.

EYES: CAUSES IRRITATION. REPEATED EXPOSURE TO DUST MAY CAUSE EYE INJURY. SKIN: MAY CAUSE ALLERGIC SKIN RE ACTION BASED ON HUMAN EXPERIENCE. MAY CAUSE SKIN DEPIGMENTATION. PROLONGED OR REPEATED CONTACT WITH AQUEOUS SOLUTIONS M

AY CAUSE IRRITATION. INGESTION:

HARMFUL IF SWALLOWED. MAY CAUSE IRRITATION OF THE GASTROINTESTINAL TRACT.

Explanation of Carcinogenicity:CARCINOGENICITY CLASSIFICATION

(COMPONENTS PRESENT AT 0.1% OR MORE): - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC): GROUP 3 - NOT CLASSIFIABLE - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH): A3 - ANIMAL CARCINOGEN - NATIONAL TOXICOLOGY PROGRAM (NTP): NONE - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (

OSHA): NONE

Effects of Overexposure:EYES: CAUSES IRRITATION. SKIN: MAY CAUSE SKIN

DEPIGMENTATION. PROLONGED OR REPEATED CONTACT WITH AQUEOUS SOLUTIONS MAY CAUSE IRRITATION. INGESTION: MAY CAUSE IRRITATION OF THE GASTROINTESTINAL TRACT.

Medical Cond Aggravated by Exposure:NOT PROVIDED

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

First Aid:INHALATION: IF SYMPTOMATIC, MOVE TO FRESH AIR. TREAT

SYMPTOMATICALLY. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. EYES:

IMMEDIATELY FLUSH WITH PLENTY OF WATER AT LEAST 15 MINUTES. GET MEDICAL ATTENTION. SKIN: IMMEDIATELY FLUSH WITH PLENTY OF WATER AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. IF SKIN IRRITATION/ ALLERGIC SKIN REACTION DEVELOPS, GET MEDICAL ATTENTION. WASH CONTAMINATED CLOTHING BEFORE REUSE. INGESTION: ONLY INDUCE VOMITING AT THE INSTRUCTION OF MEDICAL PERSONNEL. DRINK 1-2 GLASSES OF WATER. CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY

. NEVER GIVE ANY THING BY MOUTH TO AN UNCONSCIOUS PERSON.

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

Flash Point Method:CC

Flash Point:=165.C, 329.F

Extinguishing Media:WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE (CO2)

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

Unusual Fire/Explosion Hazard:POWDERED MATERIAL MAY FORM EXPLOSIVE DUST- AIR MIXTURES.

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

==

Spill Release Procedures:SWEEP UP AND PLACE IN A CONTAINER FOR CHEMICAL WASTE. CLEAN SURFACE THOROUGHLY TO REMOVE RESIDUAL CONTAMINATION.

Neutralizing Agent:NOT RELEVANT

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

Handling and Storage Precautions:KEEP CONTAINER CLOSED. POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES. MINIMIZE DUST GENERATION AND ACCUMULATION. USE WITH ADEQUATE VENTILATION. KEEP AWAY FROM SOURCES OF IGNITION. KEEP FROM CONTACT

WITH OXIDIZING MATERIALS.

Other Precautions:AVOID BREATHING DUST AT CONCENTRATIONS GREATER THAN THE EXPOSURE LIMITS. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

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

Respiratory Protection:IF ENGINEERING CONTROLS DO NOT MAINTAIN AIRBORNE CONCENTRATIONS BELOW RECOMMENDED EXPOSURE LIMITS, AN APPROVED RESPIRATOR MUST BE WORN. RESPIRATOR TYPE: DUST. I

F RESPIRATORS ARE

USED, A PROGRAM SHOULD BE INSTITUTED TO ASSURE COMPLIANCE WITH OSHA STANDARD 29 CFR 1910.134.

Ventilation:GOOD GENERAL VENTILATION (TYPICALLY 10 AIR CHANGES PER HOUR) SHOULD BE USED. VENTILATION RATES SHOULD BE MATCHED TO CONDITIONS.

Protective Gloves:WEAR IMPERVIOUS GLOVES, BOOTS, AND PROTECTIVE CLOTHING FOR RISK OF EXPOSURE.

Eye Protection:WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES) AND A FACE SHIELD.

Other Protective Equipment:WEAR A FULL-FACE RESPIRATOR, IF NEEDED. EYE BATH, WASHING FACILITIES, SAFETY SHOWER

Work Hygienic Practices:NOT PROVIDED

Supplemental Safety and Health

USE PROCESS ENCLOSURES, LOCAL EXHAUST VENTILATION, OR OTHER ENGINEERING CONTROLS TO MAINTAIN AIRBORNE LEVELS BELOW RECOMMENDED EXPOSURE LIMITS.

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

HCC:T4

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:=286.1C, 547.F

Melt/Freeze Pt:=170.C, 338.F

Decomp Temp:Decomp Text:NOT PROVIDED

Vapor

Pres:(0.000018 MM HG)

Vapor Density:3.8

Spec Gravity:(59F) (WATER = 1): 1.33

pH:4.1-4.7 (5%)

Viscosity:NOT PROVIDED

Evaporation Rate & Reference:NEGLIGIBLE

Solubility in Water:7% (MODERATE)

Appearance and Odor:WHITE (CRYSTAL) SOLID. ODOR: ODORLESS

Percent Volatiles by Volume:NEGLIGIBLE

Corrosion Rate:NOT PROVIDED

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

Stability Indicator/Materials to Avoid:YES

STRONG OXIDIZING AGENTS

Stability Condition to Avoid:NOT PROVIDED

H

azardous Decomposition Products:CARBON DIOXIDE, CARBON MONOXIDE

=====
===== Toxicological Information =====

Toxicological Information:ACUTE TOXICITY DATA: ORAL LD-50 (HUMAN):
70-170 MG/KG (ESTIMATED). ORAL LD-50 (RAT): 400 MG/KG.
INHALATION LC-50: NOT AVAILABLE DERMAL LD-50: >1000 MG/KG
(HIGHEST DOSE TESTED) SKIN IRRITATION: SLIGHT SKIN
SENSITIZATION: SLIGHT EYE IRRITATION: MODERATE

=====
===== Ecological Information =====
=====

Ecological:HIGH BIOCHEMICAL OXYGEN DEMAND, A POTENTIAL TO CAUSE OXYGEN
DEPLETION IN AQUEOUS SYSTEMS, A HIGH POTENTIAL TO AFFECT SOME
AQUATIC ORGANISMS, A MODERATE POTENTIAL TO AFFECT SECONDARY WASTE
TREATMENT MICROBIAL METABOLISM, A MODERATE POTENTIAL TO AFFECT
GERMINATION OF SOME PLANTS, A MODERATE POTENTIAL TO AFFECT GROWTH
OF SOME PLANT, A HIGH POTENTIAL TO BIODEGRADE, A HIGH POTENTIAL TO
PHOTOCHEMICALLY OR CHEMICALLY DEGRADE, A LOW POTENTIAL TO
BIOC
ONCENTRATE. AFTER DILUTION WITH A LARGE AMOUNT OF WATER,
FOLLOWED BY SECONDARY WASTE TREATMENT, THIS MATERIAL IS NOT
EXPECTED TO CAUSE ADVERSE ENVIRONMENTAL EFFECTS.

=====
===== Disposal Considerations =====

Waste Disposal Methods:DISCHARGE, TREATMENT, OR DISPOSAL MAY BE SUBJECT
TO NATIONAL, STATE, OR LOCAL LAWS. INCINERATE. SINCE EMPTIED
CONTAINERS RETAIN PRODUCT RESIDUE, FOLLOW LABEL WARNINGS EVEN AFTER
CONTAINER IS EMPTIED.

=====
===== MSDS Transport Information =====

Transport Information:FOR TRANSPORTATION INFORMATION REGARDING THIS
PRODUCT CALL THE KODAK WORLDWIDE TRANSPORTATION HAZMAT HOT LINE:
(716) 722-2400 BETWEEN 8 A.M. AND 5 P.M. (EASTERN STANDARD TIME),
MONDAY THROUGH FRIDAY .

=====
===== Regulatory Information =====

SARA Title III Information:CHEMICAL(S) SUBJECT TO THE REPORTING
REQUIREMENTS OF SECTION 313 OR TITLE III OF THE SUPERFUND
AMENDM

ENTS AND REAUTHORIZATION ACT (SARA) OF 1986 AND 40 CFR

PART 372: HYDROQUINONE

Federal Regulatory Information:NOT PROVIDED

State Regulatory Information:MATERIAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER: NONE - MATERIAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE ADVERSE REPRODUCTIVE EFFECTS: NONE

===== Other Information =====

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

This information is formulate

d 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 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.