

EASTMAN KODAK COMPANY -- 146 4114,PT A,KODAK RAPID FIXER -- 6525-00-935-4105

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

Product ID:146 4114,PT A,KODAK RAPID FIXER

MSDS Date:02/08/2001

FSC:6525

NIIN:00-935-4105

Status Code:A

Kit Part:Y

MSDS Number: CLDBH

=== Responsible Party ===

Company Name:EASTMAN KODAK COMPANY

Address:343 STATE STREET

City:ROCHESTER

State:NY

ZIP:14650

Country:US

Info Phone Num:716-477-3194

Emergency Phone Num:716-722-5151

Preparer's Name:NOT PROVID

ED

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

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

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000

Minumum % Wt:40.

Maxumum % Wt:45.

Other REC Limits:NOT PROVIDED

Code:F

Code:F

Ingred Name:AMMONIUM THIOSULFATE

CAS:7783-18-8

RTECS #:XN6465000

= Wt:42.

Other REC Limits:NOT PROVIDED
OSHA PEL:NOT PROVIDED
ACGIH TLV:NOT PROVIDED

Ingred Name:SODIUM ACETATE
CAS:127-09-3
RTECS #:AJ4300010
Minumum % Wt:5.
Maxumum % Wt:10.
Other REC Limits:NOT PROVIDED
OSHA PEL:NOT PROVIDED
ACGIH TLV:NOT PROVIDED

Ingred Name:BORIC ACID
CAS:10043-35-3
RTECS #:ED4550000
Minumum % Wt:1.
Maxumum % Wt:5.
Other REC Limits:NOT PROVIDED
OSHA PEL:NOT PROVIDED
ACGIH TLV:NOT PROVIDED

Ingred Name:AMMONIUM SULFITE
CAS:10196-04-0
Minumum % Wt:1.
Maxumum % Wt:5.
Other REC Limits
:NOT PROVIDED
OSHA PEL:NOT PROVIDED
ACGIH TLV:NOT PROVIDED
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:ACETIC ACID
CAS:64-19-7
RTECS #:AF1225000
Minumum % Wt:1.
Maxumum % Wt:5.
Other REC Limits:NOT PROVIDED
OSHA PEL:25 MG/M3;10 PPM
ACGIH TLV:25 MG/M3;10 PPM
ACGIH STEL:37 MG/M3;15 PPM
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:SODIUM BISULFITE
CAS:7631-90-5
RTECS #:VZ2000000
< Wt:1.
Other REC Limits:NOT PROVIDED
OSHA PEL:NOT PROVIDED
ACGIH TLV:5 MG/M3
EPA Rpt Qty:5000 LB

S

DOT Rpt Qty:5000 LBS

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

LD50 LC50 Mixture:LD50 (ORAL, RAT) > 2540 MG/KG

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

Health Hazards Acute and Chronic:INHALATION: EXPECTED TO BE A LOW HAZARD FOR RECOMMENDED HANDLING. IN CONTACT WITH STRONG ACIDS OR IF HEATED, SULFITES MAY LIBERATE SULFUR DIOXIDE GAS. SULFUR DIOXIDE GAS IS IRRITATING TO THE RESPIRATORY TRACT. SOME ASTHMATICS OR HYPERSENSITIVE INDIVIDUALS

MAY EXPERIENCE DIFFICULT BREATHING.

EYES: NO SPECIFIC HAZARD KNOWN. MAY CAUSE TRANSIENT IRRITATION.

SKIN: MAY BE ABSORBED IN TOXIC AMOUNTS THROUGH DAMAGED OR ABRADED SKIN. THIS MATERIAL HAS A LOW POTENTIAL TO CAUSE ALLERGIC SKIN REACTIONS; HOWEVER, CASES OF HUMAN SKIN SENSITIZATION HAVE BEEN REPORTED. INGESTION: MAY BE HARMFUL IF SWALLOWED.

Explanation of Carcinogenicity:THIS COMPOUND CONTAINS NO INGREDIENTS AT CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT CARCINOGENS.

Effects of Overexposure:INHALATION: SULFUR DIOXIDE GAS IS IRRITATING TO THE RESPIRATORY TRACT. SOME ASTHMATICS OR HYPERSENSITIVE INDIVIDUALS MAY EXPERIENCE DIFFICULT BREATHING. EYES: MAY CAUSE TRANSIENT IRRITATION. SKIN: MAY CAUSE ALLERGIC SKIN REACTIONS.

Medical Cond Aggravated by Exposure:SOME ASTHMATICS, HYPERSENSITIVE OR SULFITE-SENSITIVE INDIVIDUALS MAY EXPERIENCE DIFFICULT BREATHING, WHEEZING, CHEST TIGHTNESS, STOMACH UPSET, HIVES, FAINTNESS, WEAKNESS AND DIARRHEA.

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

First Aid:INHALATION: IF SYMPTOMATIC, MOVE TO FRESH AIR. TREAT SYMPTOMATICALLY. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. EYES: ANY MATERIAL THAT CONTACTS THE EYE SHOULD BE WASHED OUT IMMEDIATELY WITH WATER. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. SKIN: WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR. INGESTION: ONLY INDUCE VOMITING AT THE INSTRUCTION OF MEDICAL

PERSONNEL.

CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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

Flash Point:NONFLAMMABLE

Extinguishing Media:FLOOD WITH WATER.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. FIRE OR EXCESSIVE HEAT MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS.

Unusual Fire/Explosion Hazard:SOLUTION CONTAINS A STRONG REDUCING

AGENT. DRIED PRODUCT RESIDUE CAN ACT AS A REDUCING AGENT.

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

Spill Release Procedures: ABSORB SPILL WITH VERMICULITE OR OTHER INERT MATERIAL, THEN PLACE IN A CONTAINER FOR CHEMICAL WASTE. CLEAN SURFACE THOROUGHLY TO REMOVE RESIDUAL CONTAMINATION. COLLECT IN A NONCOMBUSTIBLE CONTAINER FOR PROMPT DISPOSAL.

Neutralizing Agent: NOT PROVIDED

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

Handling and

Storage Precautions: KEEP CONTAINER TIGHTLY CLOSED TO PREVENT THE LOSS OF WATER. KEEP AWAY FROM INCOMPATIBLE SUBSTANCES. DO NOT STORE OR SHIP TOGETHER WITH COMBUSTIBLE MATERIAL. STORE IN ORIGINAL CONTAINER.

Other Precautions: AVOID BREATHING MIST AT CONCENTRATIONS GREATER THAN EXPOSURE LIMITS. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. KEEP FROM CONTACT WITH OXIDIZING MATERIALS, HIGHLY OXYGENATED/HALOG

ENATED SOLVENTS, ORGANIC COMPOUNDS CONTAINING REDUCIBLE FUNCTIONAL GROUPS.

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

Respiratory Protection: NONE SHOULD BE NEEDED. A RESPIRATOR SHOULD BE WORN IF HAZARDOUS DECOMPOSITION PRODUCTS ARE LIKELY TO BE OR HAVE BEEN RELEASED. RESPIRATOR TYPE: FULL-FACE POSITIVE-PRESSURE AIR-SUPPLIED. IF 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 AND PROTECTIVE CLOTHING APPROPRIATE FOR RISK OF EXPOSURE

Eye Protection: WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES).

Other Protective Equipment: EYE BATH, WASHING FACILITIES, SAFETY SHOWER

Work Hygienic Practices: NOT PROVIDED

Supplemental Safety and Health

SUPPLEMENTARY LOCAL EXHAUST VENTILATION, CLOSED SYSTEM

S, OR RESPIRATORY

PROTECTION MAY BE NEEDED IN SPECIAL CIRCUMSTANCES SUCH AS POORLY VENTILATED SPACES, EVAPORATION FROM LARGE SURFACES, SPRAYING, H EATING, N/A = NOT APPLICABLE. N/K = UNKNOWN. N/P = NOT PROVIDED.

N/R = NOT RELEVANT. N/D = NOT DETERMINED.

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

HCC:C1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:>100.C, 212.F

Melt/Freeze Pt:M.P/F.P Text:NOT PROVIDED

Decomp Temp:Decomp Text:NOT PROVIDED

Vapor Pres:18 @ 6

8F

Vapor Density:0.6

Spec Gravity:1.32

pH:5.0

Viscosity:NOT PROVIDED

Evaporation Rate & Reference:NOT PROVIDED

Solubility in Water:COMPLETE

Appearance and Odor:LIGHT YELLOW LIQUID, SLIGHT SULFUR DIOXIDE, ACETIC ACID ODOR

Percent Volatiles by Volume:40-45 WT

Corrosion Rate:NOT PROVIDED

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

Stability Indicator/Materials to Avoid:YES

BASES, SODIUM HYPOCHLORITE (BLEACH), STRONG OXIDIZING AGENTS, HALOGENATED MATERIALS, COMB

USTIBLE MATERIAL, STRONG ACIDS. CONTACT

WITH BASE LIBERATES FLAMMABLE MATERIAL.

Stability Condition to Avoid:NOT PROVIDED

Hazardous Decomposition Products:AMMONIA, SULFUR DIOXIDE, CHLORAMINE.

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

Toxicological Information:CONTAINS: BORIC ACID. BASED ON REPEATED-DOSE INGESTION STUDIES IN ANIMALS, MAY CAUSE ADVERSE REPRODUCTIVE AND DEVELOPMENTAL EFFECTS. HOWEVER, THE DOSES ADMINISTERED WERE MANY TIMES THOSE TO

WHICH HUMANS WOULD NORMALLY BE

EXPOSED. ORAL LD-50 (RAT): > 2540 MG/KG DERMAL LD-50: > 20
ML/KG SKIN IRRITATION: SLIGHT EYE IRRITATION: SLIGHT

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

Ecological:THE FOLLOWING PROPERTIES ARE ESTIMATED FROM THE COMPONENTS
OF THE PREPARATIONS. POTENTIAL TOXICITY: FISH LC50 MG/L: >100.
DAPHNID EC50 MG/L: >100. ALGAL IC50 MG/L: >100. ORGANICS
READILY DEGRADABLE (>70%): YES (7 DAYS). POTENTIAL

BIOACCUMULATION: LOG POW 100.

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

Waste Disposal Methods:DISCHARGE, TREATMENT, OR DISPOSAL MAY BE SUBJECT
TO NATIONAL, STATE, OR LOCAL LAWS. FLUSH TO SEWER WITH LARGE AMOUNT
OF WATER. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUE, FOLLOW
LABEL WARNINGS EVEN AFTER CONTAINER IS EMPTIED.

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

Transport Information:FOR TRANSPORTATION INFORMATION REGARD
ING 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
AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 AND 40 CFR PART
372: AMMONIUM THIOSULFATE, AS A SOURCE OF AQUEOUS
AMMONIA.

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 =====

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