

EASTMAN KODAK CO GOVERNMENT MARKETS CONTRACTS -- 824 6381, WKG SOL, KODAK
X-OMAT RA/30 FIXER AND REPLENISHER -- 6525-01-463-0469

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

Product ID:824 6381, WKG SOL, KODAK X-OMAT RA/30 FIXER AND REPLENISHER

MSDS Date:10/26/2000

FSC:6525

NIIN:01-463-0469

Status Code:A

MSDS Number: CLHGV

=== Responsible Party ===

Company Name:EASTMAN KODAK CO GOVERNMENT MARKETS CONTRACTS

Address:343 STATE ST

City:ROCHESTER

State:NY

ZIP:14650-1115

Coun

try:US

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

Emergency Phone Num:716 722-5151

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

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

Ingred Name:WATER

CAS:7732-18-5

RTECS #:ZC0110000

Minumum % Wt:85.

Maxumum % Wt:90.

Other REC

Limits:NOT PROVIDED
Code:F

Ingred Name:AMMONIUM THIOSULFATE
CAS:7783-18-8
RTECS #:XN6465000
< Wt:10.
Other REC Limits:NOT PROVIDED
ACGIH TLV:NOT PROVIDED

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

Ingred Name:AMMONIUM BISULFITE
CAS:10192-30-0
RTECS #:WT3595000
< Wt:1.
Other REC Limits:NOT PROVIDED
ACGIH TLV:NOT PROVIDED
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

Ingred Name:AMMONIUM ACETATE
CAS:631-61-8
RTECS #:AF3675000
< Wt:1.
Other REC Limits:NOT PROVIDED
ACGIH TLV:NOT PROVIDED
EPA Rpt Qty:5000 LBS
DOT Rpt Qty:5000 LBS

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

LD50 LC50 Mixture:NOT PROVIDED
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:EFFECTS OF EXPOSURE: INHALATION:
EXPECTED TO BE A LOW HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL
HANDLING BY TRAINED PERSONNEL. IN CONTACT WITH STRO

NG 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: 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:

CARCINOGENICITY CLASSIFICATION

(COMPONENTS PRESENT AT 0.1% OR MORE): - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC): NONE - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH): NONE - NATIONAL TOXICOLOGY PROGRAM (NTP): NONE - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA): NONE

Effects of Overexposure: INHALATION: IN CONTACT WITH STRONG ACIDS OR IF HEATED, SULFITES MAY LIBERATE SULFUR DIOXIDE GAS. SULFUR DIOXIDE GAS IS IRRITATING TO THE RESPIRATORY TRACT. EYES: MAY CAUSE TRANSIENT IRRITATION.

Medical Condition 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 PERSIST. 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: DRINK 1-2 GLASSES OF WATER. SEEK MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Fire Fighting Measures

Flash Point: NONE

Extinguishing Media: USE APPROPRIATE AGENT FOR ADJACENT FIRE.

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:FLUSH TO SEWER WITH LARGE AMOUNT OF WATER. OTHERWISE, ABSORB SPILL WITH VERMICULITE OR OTHER INERT MATERIAL, THEN PLACE IN A CONTAINER FOR CHEMICAL WASTE. CLEAN SURFACE THOROUGHLY TO REMOVE RESIDUAL CONTAMINATION.
Neutralizing Agent:NOT PROVIDED

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

Handling and Storage Precautions:KEEP CONTAINER TIGHTLY CLOSED. KEEP AWAY FROM INCOMPATIBLE SUBSTANCES (SEE INCOMPATIBILITY SECTION). KEEP FROM CONTACT WITH OXIDIZING MATERIALS.
Other Precautions:AVOID BREATHING MIST OR VAPOR. AVOID CONTACT WITH EYES AND PROLONGED OR REPEATED CONTACT WITH SKIN. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

===== 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: ACID GAS. SEE STABILITY AND REACTIVITY SECTION. 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:IMPERVIOUS GLOVES SHOULD BE WORN.
Eye Protection:WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES).
Other Protective Equipment:EYE BATH, WASHING FACILITIES, SAFETY SHOWER
Work Hygienic Practices:IT IS A GOOD INDUSTRIAL HYGIENE PRACTICE TO MINIMIZE EYE CONTACT.
Supplemental Safety and Health
ABBREVIATION: N/A = NOT APPLICABLE. N/AV

= NOT AVAILABLE. N/K =
UNKNOWN. N/P = NOT PROVIDED. N/R = NOT RELEVANT. N/D = NOT
DETERMINED. N/E = NOT ESTABLISHED. CNS = CENTRAL NERVOUS SYSTEM. GI
= GASTROINTESTINAL. SCBA = SELF CONTAINED BREATHING APPARATUS.

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

HCC:C3
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:68F: 24 MBAR (18 MM HG)
Vapor Density:0.6
Spec Grav
ity:1.08-1.10
pH:4.9
Viscosity:NOT PROVIDED
Evaporation Rate & Reference:NOT PROVIDED
Solubility in Water:COMPLETE
Appearance and Odor:COLORLESS LIQUID. ODOR: AMMONIA.
Percent Volatiles by Volume:85-90 WT
Corrosion Rate:NOT PROVIDED

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

Stability Indicator/Materials to Avoid:YES
BASES, SODIUM HYPOCHLORITE (BLEACH), STRONG OXIDIZING AGENTS, STRONG
ACIDS.
Stability Condition to Avoid:NOT PROVIDED
Hazardous Decomposition Prod
ucts:AMMONIA, CHLORAMINE, SULFUR DIOXIDE,
NITROGEN OXIDES (NOX).

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

Toxicological Information:EFFECTS OF EXPOSURE: INHALATION: EXPECTED TO
BE A LOW HAZARD FOR USUAL INDUSTRIAL OR COMMERCIAL HANDLING BY
TRAINED PERSONNEL. 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 INDIVIDUAL

S MAY EXPERIENCE DIFFICULT BREATHING.

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

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.

===== 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.

===== 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 AMENDMENTS AND REAUTHORIZATION ACT (SARA) OF 1986 AND 40 CFR PART 372: AMMONIUM THIOSULFATE, AMMONIUM BISULFITE; AS SOURCES 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 WHMIS (CANADA) HAZARD CLASSIFICATION: D2/B

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

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

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s 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 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.