Material Safety Data Sheet

980 Regenerator

1. Chemical Product and Company Identification

Common Name : **980 Regenerator**

Synonym : Not available.

Catalog number : 8998825

Area of Application : Industrial applications. Graphic Arts Imaging.

MSDS#	**269**
Version	**2.01**
Validation Date	**2007-02-01**
Responsible Name	**Eastman Kodak Company**

Supplier : Eastman Kodak Company
343 State Street
Rochester, New York, 14650
USA

KPG# **30591**

Emergency telephone number : **In Case of Emergency (medical/roadside) (24hrs)** **CALL 1-800-451-8346**

For other Health, Safey and Environment Information : Eastman Kodak Company, Graphic Communications Group
Health, Safety & Environment
11465 Johns Creek Parkway, Suite 260, Duluth GA 30097 USA
EnviroServices Hotline: 1-877-574-7274 or 770-232-2133
Email: PEP@kodak.com; Fax: 770-232-2150

2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Water	7732-18-5	80-85	Not available.
2) Glycerol	56-81-5	1-5	**ACGIH TLV (United States, 1/2006).** TWA: 10 mg/m³ 8 hour/hours. Form: Mist **OSHA PEL (United States, 8/1997).** TWA: 5 mg/m³ 8 hour/hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hour/hours. Form: Total dust
3) 2-Phenoxyethanol	122-99-6	5	Not available.
4) Sodium methylnaphthalene sulfonate	26264-58-4	1-5	Not available.
5) Sodium octyl sulfate	142-31-4	1-5	Not available.
6) Diethanolamine	111-42-2	1	**ACGIH TLV (United States, 1/2006). Skin** TWA: 2 mg/m³ 8 hour/hours. **NIOSH REL (United States, 12/2003).** TWA: 15 mg/m³ 10 hour/hours.
7) Sodium hydroxide	1310-73-2	<1	**ACGIH TLV (United States, 1/2006).** CEIL: 2 mg/m³ **NIOSH REL (United States, 1/2003).** CEIL: 2 mg/m³ **OSHA PEL (United States, 8/1997).** TWA: 2 mg/m³ 8 hour/hours.

3. Hazards Identification

Physical State and Appearance : Liquid.

Emergency Overview : WARNING!
HARMFUL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
CAUSES EYE AND SKIN IRRITATION.

Avoid breathing vapors, spray or mists. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Routes of Entry : Absorbed through skin. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes : Hazardous in case of eye contact (irritant).

Skin : Sensitizing properties of the product: Not available.
Hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation

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	:	Hazardous in case of inhalation. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.
Ingestion	:	Harmful if swallowed.
Potential Chronic Health Effects	:	**CARCINOGENIC EFFECTS**: Not available. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available. May cause kidney damage based on animal data. May cause liver damage based on animal data. May cause blood disorders based on animal data.
Medical Conditions Aggravated by Overexposure:	:	Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

See Toxicological Information (section 11)

4. First Aid Measures

Eye Contact	:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reusing.
Inhalation	:	Allow the victim to rest in a well-ventilated area. If irritation persists, seek medical attention.
Ingestion	:	Do not induce vomiting. Have conscious person drink several glasses of water or milk. Get medical attention immediately.

5. Fire Fighting Measures

Flammability of the Product	:	May be combustible at high temperature.
Hazardous thermal (de)composition products	:	These products are carbon oxides (CO, CO_2), sulfur oxides (SO_2, SO_3...).
Fire Hazards in Presence of Various Substances	:	Not applicable.
Explosion Hazards in Presence of Various Substances	:	Not available.
Fire Fighting Media and Instructions	:	Use dry chemical, CO_2, water spray (fog) or foam.
Protective Clothing (Fire)	:	Be sure to use an approved/certified respirator or equivalent.

6. Accidental Release Measures

Small Spill and Leak	:	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of acetic acid.** Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	:	Absorb with an inert material and put the spilled material in an appropriate waste disposal. **Neutralize the residue with a dilute solution of acetic acid.** Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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7. Handling and Storage

Handling : Do not ingest. Avoid breathing vapors, spray or mists. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Storage : Keep container tightly closed and sealed until ready to use. Keep in a cool, well-ventilated place. Prevent from freezing.

8. Exposure Controls, Personal Protection

Engineering Controls : Use good general ventilation(>10 air changes/hour) and engineering controls (local exhaust, filters, process enclosures if necessary) to maintain airborne levels below ACGIH Threshold Limit Values (TLV) and OSHA Permissible Exposure Limits(PEL). Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection

Eyes : Safety glasses with side shields.

Body : Synthetic apron.

Respiratory : Not applicable. Wear appropriate respirator when ventilation is inadequate.

Hands : Impervious gloves.

Feet : Not applicable.

Protective Clothing (Pictograms) :

Personal Protection in Case of a Large Spill : Splash goggles. Lab coat. Impervious gloves. Ventilation is normally required when handling or using this product. Wear appropriate respirator when ventilation is inadequate.

Product Name	Exposure Limits
1) Water	Not available.
2) Glycerol	**ACGIH TLV (United States, 1/2006).** TWA: 10 mg/m^3 8 hour/hours. Form: Mist **OSHA PEL (United States, 8/1997).** TWA: 5 mg/m^3 8 hour/hours. Form: Respirable fraction TWA: 15 mg/m^3 8 hour/hours. Form: Total dust
3) 2-Phenoxyethanol	Not available.
4) Sodium methylnaphthalene sulfonate	Not available.
5) Sodium octyl sulfate	Not available.
6) Diethanolamine	**ACGIH TLV (United States, 1/2006). Skin** TWA: 2 mg/m^3 8 hour/hours. **NIOSH REL (United States, 12/2003).** TWA: 15 mg/m^3 10 hour/hours.
7) Sodium hydroxide	**ACGIH TLV (United States, 1/2006).** CEIL: 2 mg/m^3 **NIOSH REL (United States, 1/2003).** CEIL: 2 mg/m^3 **OSHA PEL (United States, 8/1997).** TWA: 2 mg/m^3 8 hour/hours.

Consult local authorities for acceptable exposure limits.

9. Physical and Chemical Properties

Physical State and Appearance : Liquid.

Odor : Not available.

Color : Amber.

pH : 12.9 [Basic.]

Boiling/Condensation Point : >100°C (212°F)

Melting/Freezing Point : <0°C (32°F)

Specific Gravity : 1.048 (Water = 1)

Vapor Pressure : 2.4 kPa (@ 20°C)

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Vapor Density	:	0.6 (Air = 1)
Volatility	:	80 to 85% (w/w).
VOC content - calculated	:	184 g/l (1.535 lbs/gal).
Dispersion Properties	:	See solubility in water.
Solubility	:	Easily soluble in cold water.

10. Stability and Reactivity

Stability and Reactivity	:	The product is stable.
Conditions of Instability	:	Not available.
Incompatibility with Various Substances	:	Incompatible with strong oxidizing agents. Incompatible with some strong acids.
Hazardous Decomposition Products	:	These products are carbon oxides (CO, CO_2), sulfur oxides (SO_2, SO_3...).
Hazardous Polymerization	:	Will not occur.

11. Toxicological Information

Toxicity to Animals :

Water:
ORAL (LD50): Acute: >90000 mg/kg [Rat].

Glycerol:
ORAL (LD50): Acute: 12600 mg/kg [Rat].
DERMAL (LD50): Acute: >10000 mg/kg [Rabbit].

2-Phenoxyethanol:
ORAL (LD50): Acute: 1260 mg/kg [Rat].
DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].

Sodium methylnaphthalene sulfonate:
ORAL (LD50): Acute: 5620 mg/kg [Rat].

Sodium octyl sulfate:
ORAL (LD50): Acute: 3200 mg/kg [Rat].

Diethanolamine:
ORAL (LD50): Acute: 710 mg/kg [Rat].
DERMAL (LD50): Acute: 12200 mg/kg [Rabbit].

Sodium hydroxide:
ORAL (LD50): Acute: 104 mg/kg [Rat].

Chronic Effects on Humans	:	Contains: 2-phenoxyethanol. May cause blood disorders based on animal data. Contains: diethanolamine. Based on animal data, may cause adverse effects on the following organs/systems: kidney, liver, blood, nervous system, testes.
Other Toxic Effects on Humans	:	Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

12. Ecological Information

Organics Readily Degradable (70%)	:	Readily biodegradable.
BOD5 and COD	:	The BOD is 139 g O_2/g [5 day/days]. The COD is 280 g O_2/g.
Ecotoxicity	:	Ecotoxicity in water (LC50): 54000 mg/l, 96 hour/hours [Fish]. (Glycerol). 347 mg/l, 96 hour/hours [Fish (Fathead minnow (Pimepheles promelas))]. (2-Phenoxyethanol). 460 mg/l, 48 hour/hours [Daphnia]. (2-Phenoxyethanol). 1480 mg/l, 96 hour/hours [Fish]. (Diethanolamine).
Toxicity of the Products of Biodegradation	:	The product itself and its products of degradation are not toxic.

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13. Disposal Considerations

Waste Information : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Consult your local or regional authorities.

14. Transport Information

DOT Classification : Not a DOT controlled material (United States). Not a controlled material as per 49CFR.154(d)(1) (corrosive to aluminium only) (United States).

TDG Classification : TDG Class 8: Corrosive liquid.

ADR/RID Classification : ADR Class 8: Corrosive liquid.

IMO/IMDG Classification : IMDG Class 8: Corrosive liquid.

Proper Shipping Name : SODIUM HYDROXIDE SOLUTION

UN number : UN1824

Packing group : III

ICAO/IATA Classification : IATA Class 8: Corrosive liquid.

Proper Shipping Name : SODIUM HYDROXIDE SOLUTION

UN number : UN1824

Packing group : III

15. Regulatory Information

HCS Classification : Toxic
Irritating material

U.S. Federal Regulations : TSCA 8(b) inventory: All the ingredients are on the TSCA list.
SARA 302 extremely hazardous substances: No products were found.
SARA 304 emergency planning and notification: No products were found.

SARA 313 :

Reporting Requirements

2-Phenoxyethanol	5%
Diethanolamine	1%

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112(r) accidental release prevention: No products were found.

International Regulations

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).
Class E: Corrosive liquid. (metals)

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

CEPA DSL/NDSL : CEPA DSL: All the ingredients are on the DSL list.

DSCL (EEC) : R36- Irritating to eyes.

State Regulations : Pennsylvania RTK: Glycerol: (not a special hazard); Diethanolamine: (environmental hazard); Sodium hydroxide: (environmental hazard)
Florida: Diethanolamine; Sodium hydroxide
Massachusetts RTK: Glycerol; Diethanolamine; Sodium hydroxide
New Jersey: Diethanolamine; Sodium hydroxide

California Prop. 65: No products were found.

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16. Other Information

Hazardous Material Information System (U.S.A.) :

Health	*	2
Fire Hazard		0
Reactivity		0
Personal Protection		C

National Fire Protection Association (U.S.A.)

References : Not available.

Other Special Considerations : Not available.

Validated by Kodak Polychrome Graphics on 2007-02-01.

Verified by Eastman Kodak Company.
Printed 2007-02-01.

In Case of Emergency CALL 1-800-451-8346

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