

Safety Data Sheet

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1. Identification of the substance/preparation and of the company/undertaking

Product name: 220R Thermal Plate Replenisher

Product code: 9288689

Supplier: KODAK LIMITED, Hemel One, Boundary Way, Hemel Hempstead, HP2 7YU, Great Britain

IN EMERGENCY, telephone: 0870-2430270. Available during office hours only.

For further information about this product, telephone 0870-2430270 or email kes@kodak.com.

Synonyms: None.

Product Use: plate processing chemical (developer), For industrial use only.

2. Hazards identification

This Safety Data Sheet conforms to REACH Regulation (EC) 1907/2006.

Product: Irritant. Irritating to eyes and skin.

3. Composition/information on ingredients

Weight %	Component	CAS-No.	EINECS-No./ ELINCS No.	Classification
5 - < 10	Ethane-1,2-diol	107-21-1	203-473-3	Xn; R22*
5 - < 10	Silicic acid, potassium salt	1312-76-1	215-199-1	C; R34**
1 - 5	tripotassium orthophosphate	7778-53-2	231-907-1	Xi; R36/37/38**
1 - 5	glycerol	56-81-5	200-289-5	**
0.5 - < 2	Potassium hydroxide	1310-58-3	215-181-3	C; R22, R35*

* Symbol and R Phrase according to EC Annex I

** Substance not listed in EC Annex I

4. First aid measures

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms occur.

Eyes: In case of contact with eyes, flush immediately with plenty of water and seek medical attention.

Skin: Immediately flush with plenty of water for at least 15 minutes and wash using soap. Get medical attention if symptoms occur.

Ingestion: Do NOT induce vomiting. Give victim a glass of water. Get medical attention immediately. Never give anything by mouth to an unconscious person.

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5. Fire-fighting measures

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products: None, (see also Stability and Reactivity section).

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions: See Section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Prevent spillage from entering drains. Absorb spill with vermiculite or other inert absorbant material such as sand or earth, then place in a suitable container for proper disposal. Clean surface thoroughly with water to remove residual contamination.

Waste disposal: Contaminated absorbent should be disposed of in accordance with local regulations.

7. Handling and storage

Personal precautions: Avoid breathing mist or vapour. Do not get in eyes and avoid contact with skin and clothing. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

Storage: Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from incompatible substances (see Incompatibility section.)

Ventilation: Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8). Good general ventilation of 10 or more room volumes per hour in the work area is recommended.

8. Exposure controls/personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
Ethylene glycol	EH40	time weighted average	10 mg/m ³
			<i>Form of exposure: particulate</i>
		time weighted average	20 ppm 52 mg/m ³
			<i>Form of exposure: vapour</i>
		Short term exposure limit	30 mg/m ³
Glycerol			<i>Form of exposure: particulate</i>
		Short term exposure limit	40 ppm 104 mg/m ³
			<i>Form of exposure: vapour</i>
			<i>Potential for cutaneous absorption</i>
Glycerol		time weighted average	10 mg/m ³
			<i>Form of exposure: mist</i>
		Short term exposure limit	30 mg/m ³
Ethylene glycol	HSA		<i>Form of exposure: mist</i>
		Short term exposure limit	40 ppm 104 mg/m ³
			<i>Form of exposure: vapour</i>
			<i>Potential for cutaneous absorption</i>

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10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Strong oxidizing agents, Strong acids.

Hazardous decomposition products: None under normal conditions of use.

Hazardous Polymerization: Hazardous polymerisation does not occur.

11. Toxicological information

Effects of Exposure

Inhalation: Expected to be a low hazard for recommended handling.

Eyes: Irritating to eyes.

Skin: Irritating to skin.

Ingestion: Expected to be a low ingestion hazard.

Data for Ethane-1,2-diol (CAS 107-21-1):

Acute Toxicity Data:

Oral LD50 (rat): 6,140 mg/kg

- Dermal LD50 (rabbit): 10,611 mg/kg

Data for tripotassium orthophosphate (CAS 7778-53-2):

Acute Toxicity Data:

Oral LD50 (rat): 1,600 - 3,200 mg/kg (10% in water)

- Oral LD50 (rat): > 3,200 mg/kg
- Dermal LD50 (guinea pig): > 1,000 mg/kg
- Dermal LD50 (guinea pig): 20 cc/kg
- Skin irritation: moderate to strong
- Eye irritation: severe

Data for Potassium hydroxide (CAS 1310-58-3):

Acute Toxicity Data:

Oral LD50 (rat): 273 mg/kg

- Skin irritation: severe

Data for glycerol (CAS 56-81-5):

Acute Toxicity Data:

Oral LD50 (rat): 17,000 - 27,200 mg/kg

- Inhalation LC50 (rat): > 570 mg/m³ / 1 hr
- Dermal LD50 (rat): > 21,900 mg/kg
- Skin irritation: No skin irritation
- Eye irritation: No eye irritation

12. Ecological information

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The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Toxicity to fish (LC50):	> 100 mg/l
Toxicity to daphnia (EC50):	> 100 mg/l
Toxicity to algae (IC50):	10 - 100 mg/l
Toxicity to other organisms (EC50):	> 100 mg/l

Persistence and degradability: Expected to biodegrade.

Chemical Oxygen Demand (COD): 164 g/l

Biochemical Oxygen Demand (BOD): 64 g/l

13. Disposal considerations

This information is provided to assist users in the correct disposal of working solutions prepared and used to Kodak specifications.

Waste material: Waste material is currently classified as hazardous under Council Directive 91/689/EEC. The European Waste Catalogue Code is 09 01 02 Water based offset plate developer solutions. Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

Product containers: If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. Whenever possible, minimize waste by using the rinsing water to make up the working solution. The European Waste Catalogue Code is 15 01 02 plastic packaging.

Waste product packaging contaminated by residues of hazardous contents should be consigned for disposal as hazardous waste. In this case, the European Waste Catalogue Code is 15 01 10 packaging containing residues of or contaminated by dangerous substances.

14. Transport information

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

ADR:	UN-Number:	UN3266
	Proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium silicate (1-<=1.6), Potassium hydroxide)
	Class:	8
	Packaging group:	III

IATA:	UN-Number:	UN3266
	Proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium silicate (1-<=1.6), Potassium hydroxide)
	Class:	8

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	Packaging group:	III
IMDG:	UN-Number:	UN3266
	Proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium silicate (1-<=1.6), Potassium hydroxide)
	Class:	8
	Packaging group:	III
RID:	UN-Number:	UN3266
	Proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium silicate (1-<=1.6), Potassium hydroxide)
	Class:	8
	Packaging group:	III

For more transportation information, go to: www.kodak.com/go/ship.

15. Regulatory information

Notification status

Regulatory List	Notification status
TSCA	All listed
DSL	All listed
NDSL	None listed
EINECS	Not all listed
ELINCS	None listed
NLP	None listed
AICS	All listed
IECS	All listed
ENCS	Not all listed
ECI	All listed
NZIoC	All listed
PICCS	All listed

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Labelling:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

pH: > 12

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Symbol/Indication of Danger: Xi: Irritant

Risk Phrases: R36/38: Irritating to eyes and skin.

16. Other information

The following is an explanation of the meaning of the Symbol letters and Risk Phrases for the pure substance(s) referred to in Section 2 of this Safety Data Sheet.

C: Corrosive

Xn: Harmful

Xi: Irritant

R22: Harmful if swallowed.

R34: Causes burns.

R35: Causes severe burns.

R36/37/38: Irritating to eyes, respiratory system and skin.

R36/38: Irritating to eyes and skin.

Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.
