



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Identification of the preparation CR291Series

Product use Inkjet printing

Version # 01

Revision date 12-Jul-2012

CAS # Mixture

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2. Hazards Identification

Emergency overview WARNING!
Irritating to eyes, respiratory system and skin.
Corrosive to metals

Acute health effects

Skin contact Avoid contact with the skin.
Contact with skin may result in severe irritation. Irritating and may cause redness and pain.
Causes permanent skin damage (scarring).

Eye contact Avoid contact with eyes.
This product may cause severe irritation, redness, or blurred vision.
Prolonged or repeated exposure may cause severe irritation. Contact with eyes may result in severe irritation.

Inhalation Do not breathe vapour. Causes respiratory tract irritation. Prolonged inhalation may be harmful.

Ingestion May be harmful if swallowed. May irritate and cause malaise.
Ethylene glycol
Harmful if swallowed. May cause kidney and liver damage. May depress the central nervous system.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Glycerin	56-81-5	20 - 40
Ethylene glycol	107-21-1	2.5 - 10
Proprietary Component	Proprietary	< 30
Proprietary Component	Proprietary	< 30
Proprietary Component	Proprietary	< 30

4. First Aid Measures

First aid procedures

Eye contact Do not rub eyes. In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
Inhalation	Move to fresh air. If symptoms persist, get medical attention.
Ingestion	Rinse mouth out with water. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Notes to physician	Treat symptomatically. Symptoms may be delayed.

5. Fire Fighting Measures

Flammable properties	None known.
Extinguishing media	
Suitable extinguishing media	CO2, water, dry chemical, or foam
Unsuitable extinguishing media	None known.
Protection of firefighters	
Protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Hazardous combustion products	Fire may produce irritating, corrosive and/or toxic gases.

6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. Wear appropriate personal protective equipment. Avoid inhalation of vapors and contact with skin and eyes.
Environmental precautions	Do not let product enter drains. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up	Wipe up with adsorbent material (e.g. cloth, fleece).
Other information	Soak up with inert absorbent material. Dispose of in compliance with federal, state, and local regulations. See also section 13 Disposal considerations.

7. Handling and Storage

Handling	Avoid contact with skin, eyes and clothing. Provide good ventilation. Wear personal protective equipment. Avoid inhalation of vapors and contact with skin and eyes.
Storage	Keep away from heat, sparks and flame. Keep away from excessive heat or cold. Store in closed original container in a dry place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value	Form
Ethylene glycol (107-21-1)	Ceiling	100.0000 mg/m3	Aerosol.
Glycerin (56-81-5)	TWA	10.0000 mg/m3	Mist.

U.S. - OSHA

Components	Type	Value	Form
Glycerin (56-81-5)	PEL	15.0000 mg/m3 5.0000 mg/m3	Total dust. Respirable fraction.

U.S. - Tennessee

Components	Type	Value	Form
Ethylene glycol (107-21-1)	Ceiling	50.0000 ppm 125.0000 mg/m3	
Glycerin (56-81-5)	TWA	10.0000 mg/m3 5.0000 mg/m3	Total dust and mist. Respirable fraction and dust or fume.

Engineering controls	Provide adequate ventilation.
Personal protective equipment	
Eye / face protection	Wear safety glasses; chemical goggles (if splashing is possible).
Skin protection	Wear appropriate chemical resistant gloves. Wear suitable protective clothing and eye/face protection. Remove and wash contaminated clothing before re-use.
Respiratory protection	Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection.
General hygiene considerations	When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.
General	Avoid contact with the skin and the eyes. Wear suitable protective equipment.

9. Physical & Chemical Properties

Appearance	Liquid.
Color	Black.
Odor	Odorless
Odor threshold	Not available.
Physical state	Liquid
Form	Not available.
pH	6.8 - 7.7
Melting point	Not available.
Freezing point	Not available.
Boiling point	Not available.
Flash point	230 °F (110 °C)
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	Not available.
Relative density	Not available.
Solubility (water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	Not available.

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Incompatible materials	oxidizing agents
Hazardous decomposition products	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	None known.

11. Toxicological Information

Carcinogenicity	Proprietary component 1 is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).
ACGIH Carcinogens	
Ethylene glycol (CAS 107-21-1)	A4 Not classifiable as a human carcinogen.
Routes of exposure	Potential routes of exposure under normal use conditions are skin and eye contact; and inhalation
Toxicological information	Complete toxicity data are not available for this specific formulation

Serious eye damage/eye irritation Not available.

Symptoms and target organs

Target Organs (NIOSH)

Ethylene glycol (CAS 107-21-1)

Central Nervous System

Eyes

Respiratory system

Skin

Glycerin (CAS 56-81-5)

Eyes

Kidneys

Respiratory system

Skin

12. Ecological Information

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability Not available.

Other adverse effects This product has not been tested for ecological effects.

13. Disposal Considerations

Disposal instructions Do not allow this material to drain into sewers/water supplies. Dispose of in compliance with federal, state, and local regulations.

14. Transport Information

DOT

Basic shipping requirements:

UN number UN1760

Proper shipping name Corrosive liquids, n.o.s. (Sodium Hydroxide)

Hazard class 8

Packing group III

Additional information:

Special provisions IB3, T7, TP1, TP28

Packaging exceptions 154

Packaging non bulk 203

Packaging bulk 241

ERG number 154



DOT

IATA

Basic shipping requirements:

Proper shipping name Corrosive liquids, n.o.s. (Sodium Hydroxide)

Hazard class 8

UN number 1760

Packing group III



IATA

IMDG

Basic shipping requirements:

Proper shipping name Corrosive liquids, n.o.s. (Sodium Hydroxide)
Hazard class 8
UN number UN1760
Packing group III
Additional information:
Packaging exceptions 154



IMDG

RID

Basic shipping requirements:

Proper shipping name Corrosive liquids, n.o.s. (Sodium Hydroxide)
Hazard class 8
UN number 1760
Packing group III
Additional information:
Packaging exceptions 154



RID

15. Regulatory Information

US federal regulations All ingredients are listed or exempt.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Ethylene glycol (CAS 107-21-1) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Ethylene glycol (CAS 107-21-1) Listed.

CERCLA (Superfund) reportable quantity

None

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 Yes
hazardous chemical

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

State regulations**US - New Jersey Community RTK (EHS Survey): Listed substance**

Ethylene glycol (CAS 107-21-1) Substance no. 0878

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Ethylene glycol (CAS 107-21-1) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Ethylene glycol (CAS 107-21-1) Listed.

Glycerin (CAS 56-81-5) Listed.

Regulatory information Contains components not listed in: Japan, Canada, European Union, and Philippines.

16. Other Information

HMIS® ratings Health: 2
Flammability: 1
Physical hazard: 1

NFPA ratings Health: 2
Flammability: 1
Instability: 1

Disclaimer This Safety Data Sheet document is provided without charge to customers of Hewlett-Packard Company. Data is the most current known to Hewlett-Packard Company at the time of preparation of this document and is believed to be accurate. It should not be construed as guaranteeing specific properties of the products as described or suitability for a particular application. This document was prepared to the requirements of the jurisdiction specified in Section 1 above and may not meet regulatory requirements in other countries.

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Explanation of abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Cleveland Open Cup
DOT	Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know Act (aka SARA)
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RCRA	Resource Conservation and Recovery Act
REC	Recommended
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act of 1986
STEL	Short-Term Exposure Limit
TCLP	Toxicity Characteristics Leaching Procedure
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
VOC	Volatile Organic Compounds