



# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name or designation of the mixture** CH220Series  
**Registration number** -  
**Synonyms** HP Designjet 788 Light Cyan Ink  
**Issue date** 20-Sep-2013  
**Version number** 05  
**Revision date** 23-Nov-2014  
**Supersedes date** 17-Nov-2014

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Inkjet printing  
**Uses advised against** None known.  
**Company identification** Hewlett-Packard, Ltd.  
Cain Road, Amen Corner  
Bracknell, Berkshire, RG12 1HN  
Telephone 44 (0) 879 013 0790  
  
Hewlett-Packard health effects line  
(Toll-free within the US) 1-800-457-4209  
(Direct) 1-760-710-0048  
HP Customer Care Line  
(Toll-free within the US) 1-800-474-6836  
(Direct) 1-208-323-2551  
Email: hpcustomer.inquiries@hp.com  
Poison Information Center 0207771 5307

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 as amended

#### Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.
Reproductive toxicity	Category 2	H361f - Suspected of damaging fertility.
Specific target organ toxicity - repeated exposure	Category 1	H372 - Causes damage to organs (liver, respiratory system) through prolonged or repeated exposure.

#### Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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#### Classification according to Directive 67/548/EEC or 1999/45/EC as amended

**Classification** Xi;R36/38, R52/53

#### Hazard summary

**Physical hazards** Not classified for physical hazards.  
**Health hazards** Irritating to eyes and skin.  
**Environmental hazards** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
**Specific hazards** Not available.  
**Main symptoms** Not available.

### 2.2. Label elements

## Label according to Regulation (EC) No. 1272/2008 as amended

**Contains:** 2-benzyl-2-dimethylamino-4-morpholinobutyrophenone, 2-Phenoxy-ethyl acrylate, Aliphatic Urethane Acrylate, Alkyl Acrylate Ester #1, Alkyl Acrylate Ester #2, Carboxylic Acids, Esters, Multi-Functional Acrylate Ester, N-vinylcaprolactam, Proprietary initiator

### Hazard pictograms



### Signal word

Danger

### Hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H361f Suspected of damaging fertility.  
H372 Causes damage to organs (liver, respiratory system) through prolonged or repeated exposure  
H411 Toxic to aquatic life with long lasting effects.

### Precautionary statements

#### Prevention

P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.  
P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P270 - Do not eat, drink or smoke when using this product.  
P264 - Wash hands thoroughly after handling.  
P273 - Avoid release to the environment.

#### Response

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 - If eye irritation persists: Get medical advice/attention.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P308 + P313 - IF exposed or concerned: Get medical attention/advice.  
P391 - Collect spillage.  
P362 - Take off contaminated clothing and wash before reuse.

#### Storage

P405 - Store locked up.

#### Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### Supplemental label information

None.

### 2.3. Other hazards

Benzophenone is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).

Potential routes of exposure to this product are skin and eye contact, ingestion, and inhalation.

Proprietary initiator - In animal testing, risk of impaired fertility was shown only after repeated ingestion of very high doses of this substance.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
2-Phenoxy-ethyl acrylate	<40	48145-04-6 256-360-6	-	-	

**Classification:** **DSD:** R43, N;R51/53  
**CLP:** Skin Sens. 1A;H317, Aquatic Chronic 2;H411

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Carboxylic Acids, Esters	<25	3076-04-8 221-351-8	-	-	
<b>Classification:</b>	<b>DSD:</b>	Xi;R36/37/38, N;R51/53			
	<b>CLP:</b>	Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335, Aquatic Chronic 2;H411			
N-vinylcaprolactam	<25	2235-00-9 218-787-6	-	-	
<b>Classification:</b>	<b>DSD:</b>	Xn;R22, Xi;R36, R43			
	<b>CLP:</b>	Acute Tox. 4;H302, Skin Sens. 1B;H317, Eye Irrit. 2;H319, STOT RE 1;H372			
Aliphatic Urethane Acrylate	<10	Proprietary	-	-	
<b>Classification:</b>	<b>DSD:</b>	-			
	<b>CLP:</b>	-			
Alkyl Acrylate Ester #2	<10	Proprietary	-	-	
<b>Classification:</b>	<b>DSD:</b>	R43, N;R51/53			
	<b>CLP:</b>	Skin Sens. 1B;H317, Aquatic Chronic 2;H411			
Multi-Functional Acrylate Ester	<5	Proprietary	-	-	
<b>Classification:</b>	<b>DSD:</b>	Xi;R36, R43, R52/53			
	<b>CLP:</b>	Skin Sens. 1A;H317, Eye Irrit. 2;H319, Aquatic Chronic 3;H412			
Proprietary initiator	<5	Proprietary	-	-	
<b>Classification:</b>	<b>DSD:</b>	Repr. Cat. 3;R62			
	<b>CLP:</b>	-			
Alkyl Acrylate Ester #1	<2.5	Proprietary	-	-	
<b>Classification:</b>	<b>DSD:</b>	Xi;R36/38			
	<b>CLP:</b>	Skin Irrit. 2;H315, Eye Irrit. 2;H319			
2-benzyl-2-dimethylamino-4-morpholinobutyrophenone	<1	119313-12-1 404-360-3	-	606-047-00-9	
<b>Classification:</b>	<b>DSD:</b>	N;R50/53			
	<b>CLP:</b>	Repr. 2;H361d, Aquatic Acute 1;H400, Aquatic Chronic 1;H410			

## SECTION 4: First aid measures

**General information** Not available.

### 4.1. Description of first aid measures

<b>Inhalation</b>	Move to fresh air. If symptoms persist, get medical attention.
<b>Skin contact</b>	Wash affected areas thoroughly with mild soap and water. If irritation persists get medical attention.
<b>Eye contact</b>	Do not rub eyes. Immediately flush with large amounts of clean, warm water (low pressure) for at least 15 minutes or until particles are removed. If irritation persists get medical attention.
<b>Ingestion</b>	If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms and effects, both acute and delayed** Not available.

**4.3. Indication of any immediate medical attention and special treatment needed** Not available.

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## SECTION 5: Firefighting measures

**General fire hazards** Not available.

### 5.1. Extinguishing media

**Suitable extinguishing media** Dry powder. Carbon dioxide (CO<sub>2</sub>). Water may be ineffective.

**Unsuitable extinguishing media** Water.

**5.2. Special hazards arising from the substance or mixture** Not available.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Not available.

**Special fire fighting procedures** Avoid runoff into storm sewers and ditches which lead to waterways.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Wear appropriate personal protective equipment. Do not touch or walk through spilled material.

**For emergency responders** Not available.

**6.2. Environmental precautions** Do not let product enter drains. Do not flush into surface water or sanitary sewer system. See also section 13 Disposal considerations.

**6.3. Methods and material for containment and cleaning up** Not available.

**6.4. Reference to other sections** Not available.

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## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Avoid contact with skin, eyes and clothing.

**7.2. Conditions for safe storage, including any incompatibilities** Keep away from excessive heat or cold. Do not store in direct sunlight. Do not handle or store near an open flame, heat or other sources of ignition. Opaque, high density polyethylene (HDPE) containers are recommended for shipping and storage.

**7.3. Specific end use(s)** Not available.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational exposure limits** No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures** Not available.

#### Derived no-effect level (DNEL)

Components	Type	Route	Value	Form
2-Phenoxy-ethyl acrylate (CAS 48145-04-6)	Industry	Dermal	1.5 mg/kg/day	
		Inhalation	10 mg/m <sup>3</sup>	
N-vinylcaprolactam (CAS 2235-00-9)	Not applicable	Dermal	0.7 mg/kg bw/d	
		Inhalation	0.17 mg/m <sup>3</sup>	

**Predicted no effect concentrations (PNECs)** Not available.

**Exposure guidelines** Exposure limits have not been established for this product.

## 8.2. Exposure controls

**Appropriate engineering controls** Not available.

### Individual protection measures, such as personal protective equipment

**General information** Not available.

**Eye/face protection** Wear safety glasses; chemical goggles (if splashing is possible). Eye wash fountain and emergency showers are recommended.

#### Skin protection

- **Hand protection** Not available.

- **Other** Wear appropriate chemical resistant gloves.  
Wear appropriate chemical resistant clothing.

**Respiratory protection** Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment.

**Thermal hazards** Not available.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Do not get this material in your eyes, on your skin, or on your clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Launder contaminated clothing before reuse. Keep away from food and drink.

**Environmental exposure controls** Not available.

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state** Liquid.

**Color** Light Cyan

**Odor** Characteristic.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** > 230.0 °F (> 110.0 °C) Closed Cup

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not available.

#### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Vapor pressure** Not available.

#### Solubility(ies)

**Solubility (water)** Not available.

**Solubility (other)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Explosive properties** Not available.

**Oxidizing properties** Not available.

### 9.2. Other information

**Chemical family** Acrylate/Polymer/Pigment Blend

**VOC (Weight %)** < 95 g/L

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## SECTION 10: Stability and reactivity

**10.1. Reactivity** Not available.

**10.2. Chemical stability** Stable under normal storage conditions.

<b>10.3. Possibility of hazardous reactions</b>	Hazardous polymerization can occur with decreased inhibitor content.
<b>10.4. Conditions to avoid</b>	Exposure to sunlight.
<b>10.5. Incompatible materials</b>	Incompatible with strong bases and oxidizing agents. alkaline metals
<b>10.6. Hazardous decomposition products</b>	Upon decomposition, this product may yield gaseous nitrogen oxides, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

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## SECTION 11: Toxicological information

<b>General information</b>	Not available.
<b>11.1. Information on toxicological effects</b>	
<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.
<b>Skin sensitization</b>	May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met. Benzophenone is classified by the IARC as a Group 2B carcinogen (the substance is possibly carcinogenic to humans).
<b>Reproductive toxicity</b>	Suspected of damaging fertility.
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs (liver, respiratory system) through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Mixture versus substance information</b>	Not available.
<b>Other information</b>	Complete toxicity data are not available for this specific formulation

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## SECTION 12: Ecological information

<b>Aquatic toxicity</b>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This product has not been tested for ecological effects.
<b>12.1. Toxicity</b>	No toxicity data noted for the ingredient(s).
<b>12.2. Persistence and degradability</b>	Not available.
<b>12.3. Bioaccumulative potential</b>	Not available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.

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## SECTION 13: Disposal considerations

<b>13.1. Waste treatment methods</b>	
<b>Residual waste</b>	Not available.
<b>Contaminated packaging</b>	Not available.
<b>EU waste code</b>	Not available.
<b>Disposal methods/information</b>	Do not dispose of together with general office waste. Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Ensure collection and disposal with an appropriately licensed waste contractor.

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## SECTION 14: Transport information

<b>DOT</b>	
<b>UN number</b>	UN3082

**UN proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Special precautions for user** DOT Classification only applies to shipments within the US and Puerto Rico.

#### IATA

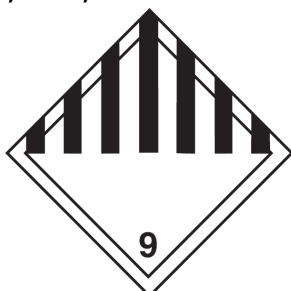
**UN number** UN3082  
**UN proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards** Yes  
**Special precautions for user** Not available.

#### IMDG

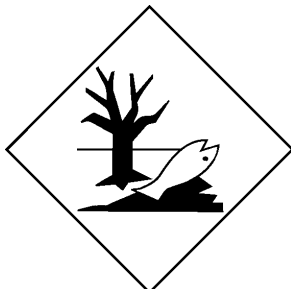
**UN number** UN3082  
**UN proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates), MARINE POLLUTANT  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** Yes  
**EmS** F-A, S-F  
**Special precautions for user** Not available.

**General information** DOT Classification only applies to shipments within the US and Puerto Rico.

#### DOT; IATA; IMDG



#### Marine pollutant



#### ADR

**Proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (Acrylates)  
**Hazard class** 9  
**UN number** 3082  
**Packing group** III  
**Marine pollutant** Yes



ADR

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended**

Not listed.

**Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA**

Not listed.

#### Authorizations

**Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorization**

Not listed.

#### Restrictions on use

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not regulated.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding**

Not regulated.

#### Labeling

##### Symbol(s)



Irritant

##### R-phrases(s)

R36/38 Irritating to eyes and skin.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



**S-phrases(s)** S24/25 Avoid contact with skin and eyes.  
S51 Use only in well-ventilated areas.  
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**Other EU regulations**

**Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances**

Not regulated.

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Proprietary initiator (CAS Proprietary)

**Directive 94/33/EC on the protection of young people at work**

Not regulated.

**Other regulations**

The components of this product are reported in the following inventories: USA, European Union, Canada, New Zealand, Japan, Philippines, China, Australia, Korea.

**Other information**

Specific Provisions: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (in the amended version OJ L 396 from 29.05.2007 page 3 with further rectifications and amendments).

Exposure Limits (See Section 8): Executive regulation of Minister of Labour and Social Policy dated Nov. 29, 2002 concerning the highest exposure limits and volume of factors harmful for health and environment at work (Official Journal of Laws no 217/2002 item 1833 with further amendments).

**National regulations**

Not available.

**15.2. Chemical safety assessment**

Not available.

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**SECTION 16: Other information**

**References**

Not available.

**Information on evaluation method leading to the classification of mixture**

Not available.

**Full text of any statements or R-phrases and H-statements under Sections 2 to 15**

R22 Harmful if swallowed.  
R36 Irritating to eyes.  
R36/37/38 Irritating to eyes, respiratory system and skin.  
R36/38 Irritating to eyes and skin.  
R43 May cause sensitization by skin contact.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R62 Possible risk of impaired fertility.  
R63 Possible risk of harm to the unborn child.  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H361d Suspected of damaging the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.

**Revision information**

None.

**Training information**

Not available.

**Disclaimer**

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**Issue date**

20-Sep-2013

**Manufacturer information**

Hewlett-Packard Company  
3000 Hanover Street  
Palo Alto, California 94304-1112 US  
Product Information 1-800-925-0563

**Explanation of abbreviations**

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

**List of abbreviations**

Not available.

**Safety phrase(s)**

S24/25 Avoid contact with skin and eyes.  
S51 Use only in well-ventilated areas.  
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.