



# SAFETY DATA SHEET

## 1. Identification

Important information	*** This Safety Data Sheet is only authorised for use by HP for HP Original products. Any unauthorised use of this Safety Data Sheet is strictly prohibited and may result in legal action being taken by HP. ***
Product identifier	B87XLSeries
Other means of identification	None.
Recommended use	Materials to be processed in HP 3D MJF equipment only.
Recommended restrictions	HP PA11 powder is not intended to be used in medical device applications that constitute a non-temporary implant (i.e., that, in whole or in part, may be in contact with a patient's skin, body fluids or tissues for more than 30 days.).
Manufacturer/Importer/Supplier/Distributor information	HP Inc. 1501 Page Mill Road Palo Alto, CA 94304-1112 United States
Telephone	650-857-1501
HP Inc. health effects line	
(Toll-free within the US)	1-800-457-4209
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## 2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Not classified.	
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	
Label elements		
Hazard symbol	None.	
Signal word	Warning	
Hazard statement	May form combustible dust concentrations in air. Harmful to aquatic life with long lasting effects.	
Precautionary statement		
Prevention	Avoid release to the environment. Take precautionary measures against static discharge. Use with adequate ventilation. Avoid generation or accumulation of dust.	
Response	If inhaled, remove to fresh air. Get medical attention if symptoms persist. IN CASE OF FIRE, use water spray or fog, foam, dry chemical or CO2. Collect in a chemical waste container. Use only vacuum cleaners approved for combustible dust collection.	
Storage	Not available.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	May form combustible dust concentrations in air. A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out. Risk of skin burns caused by hot melt.  Based on the available information, it is not possible to conclude on the endocrine disruptor potential.	

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Zinc Oxide		1314-13-2	<1
Ethylenebis(oxyethylene) Bis[3-(5-tert-butyl-4-hydroxy-m-tolyl) propionate]		36443-68-2	<0.1

Composition comments	This product has been evaluated using criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).
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### 4. First-aid measures

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air.  Move to fresh air in case of accidental inhalation of vapors or decomposition products. If breathing is difficult, give oxygen. Oxygen or artificial respiration if needed. Consult a physician for specific advice.
Skin contact	When it is heated, this material may cause thermal burns. Wash affected areas with soap and water. If irritation persists, consult a physician. For contact with hot material, immediately immerse affected area of skin in large amounts of cold water to dissipate heat and reduce the extent of thermal burns. Solidified material may be removed from skin by gently rubbing with gauze and either a pharmaceutical mineral oil or a food grade vegetable oil. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product from skin because skin will tear easily.
Eye contact	Dust: Wash well-open eyes immediately, abundantly and thoroughly with water. Remove particle remaining under the eyelids. If irritation persists, consult a doctor. On contact with hot product: Cool eyes rapidly with cold water after contact with molten polymer. Continue to rinse for at least 15 minutes. Get medical attention immediately.
Ingestion	If swallowed, do NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.
Most important symptoms/effects, acute and delayed	No experiences of acute or chronic damages in humans have been made yet.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Risk of skin burn caused by hot melt. Do not leave the victim unattended. Remove victim immediately from source of exposure. Victim to lie down in the recovery position, cover and keep him warm.

### 5. Fire-fighting measures

Suitable extinguishing media	water spray
Unsuitable extinguishing media	High volume water jet, fine dust dispersed in air may ignite, risk of dust explosion.
Specific hazards arising from the chemical	300 - 350 °C: possible formation of Monomer and oligomer (white fumes) Temperature exceeding 350°C: Thermal decomposition giving toxic and corrosive products : Carbon monoxide, Ammonia, Amino derivatives Temperature exceeding 500 °C : Formation of toxic products through combustion: Carbon oxides, Hydrogen cyanide (hydrocyanic acid), (traces).
Special protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Fire fighting equipment/instructions	Do not use a solid stream of water. A solid stream of water can cause a dust explosion. Fire fighting equipment should be thoroughly decontaminated after use.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted. Dust clouds generated during handling and/or storage can form explosive mixtures with air. Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Prohibit all sources of sparks and ignition - Do not smoke. Avoid contact with skin and eyes and inhalation of dust. Wear a dust mask and safety glasses/goggles if necessary. In case of inadequate ventilation, use respiratory protection.
<b>Methods and materials for containment and cleaning up</b>	Sweep up or vacuum up spillage and collect in suitable container for disposal. If a vacuum is used, the motor must be rated as dust explosion-proof. Dispose of in compliance with federal, state, and local regulations.
<b>Environmental precautions</b>	Prevent further leakage or spillage. Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Prevent dust accumulation to minimize explosion hazard. Avoid contact with skin and eyes. Inside and outside the equipment should be cleaned regularly with an explosion-protected vacuum cleaner to avoid dust accumulation. Do not sweep the dust or try to remove it with a compressed-air gun. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.
<b>Conditions for safe storage, including any incompatibilities</b>	Do not expose to heat or store above 60 C. Eliminate sources of ignition. Store away from moisture and heat to maintain the technical properties of the product.

## 8. Exposure controls/personal protection

### Occupational exposure limits

Also see Exposure guidelines.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Zinc Oxide (CAS 1314-13-2)	PEL	5 mg/m3	Fume.
		5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

#### US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Zinc Oxide (CAS 1314-13-2)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

#### ACGIH Material

	Type	Value
HP 3D HR PA 11 Gen2	TWA	3 mg/m3
<b>Comments:</b> Respirable particles		10 mg/m3
<b>Comments:</b> Inhalable Particles		

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Zinc Oxide (CAS 1314-13-2)	STEL	10 mg/m3	Respirable fraction.
	TWA	2 mg/m3	Respirable fraction.

#### US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
Zinc Oxide (CAS 1314-13-2)	IDLH	500 mg/m3

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Zinc Oxide (CAS 1314-13-2)	Ceiling	15 mg/m3	Dust.
	STEL	10 mg/m3	Fume.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
	TWA	5 mg/m3	Fume.
		5 mg/m3	Dust.
Biological limit values	No biological exposure limits noted for the ingredient(s).		
Exposure guidelines	Particles Not Otherwise Specified / Nuisance Dust		
	US OSHA (PEL:Z-1): 5 mg/m3 Respirable fraction		
	US OSHA (PEL:Z-1): 15 mg/m3 Total dust		
	US OSHA as amended (03/2016) (TWA:Z-3): 15 millions of particles per cubic foot of air Respirable fraction		
	US OSHA as amended (03/2016) (TWA:Z-3): 50 millions of particles per cubic foot of air Total dust		
	US OSHA as amended (03/2016) (TWA:Z-3): 5 mg/m3 Respirable fraction		
	US OSHA as amended (03/2016) (TWA:Z-3): 15 mg/m3 Total dust		
Appropriate engineering controls	<p>Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., ensure that there is no leakage from the equipment). HP recommends the use of HP accessories for unpacking 3D parts and refilling the build chamber. Read the following, in particular, if other methods are used. Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables. Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to fall freely or be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.</p> <p>Utilize appropriate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide adequate ventilation to minimize exposures or to control exposure levels to below airborne exposure limits, including as needed the use of local mechanical exhaust ventilation at sources of air contamination such as open process equipment. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Refer to the ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.</p>		
Individual protection measures, such as personal protective equipment			
Eye/face protection	Wear safety glasses with side shields (or goggles).		
Skin protection			
Hand protection	Recommended gloves: Nitrile 6 mm minimum thickness. Wear protective heat-insulating gloves during thermal processing. Any areas of skin covered with dust must be washed immediately with soap and water as the powder draws out natural moisture from the skin. Use barrier cream regularly.		
Other	Processing of this product releases vapors or fumes which may cause skin irritation. It is a good industrial hygiene practice to minimize skin contact. Wash thoroughly after handling.		
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Avoid breathing dust. Avoid breathing processing fumes or vapors. Where airborne exposure is likely or airborne exposure limits are exceeded, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components and substances released during processing.		
Thermal hazards	In thermal processing: Risk of skin burns. Wear appropriate thermal protective clothing, when necessary.		
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.		

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## 9. Physical and chemical properties

<b>Appearance</b>	Powder. Solid.
<b>Physical state</b>	Solid.
<b>Form</b>	Not available.
<b>Color</b>	Colorless.
<b>Odor</b>	mercaptans, slight.
<b>Odor threshold</b>	Olfactory threshold: Dodecane-1-thiol 0.5 ppm
<b>pH</b>	Not applicable
<b>Melting point/freezing point</b>	374 - 410 °F (190 - 210 °C)
<b>Initial boiling point and boiling range</b>	Not applicable (decomposes on heating)
<b>Flash point</b>	Not relevant
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor density</b>	Not applicable
<b>Relative Vapor density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	insoluble at 20 °C
<b>Partition coefficient (n-octanol/water)</b>	Zinc oxide: inorganic, Ethylenebis(oxyethylene) Bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]: log Kow : 4,7 (OECD Test Guideline 117)
<b>Auto-ignition temperature</b>	No data available.
<b>Decomposition temperature</b>	>662 °F (>350 °C)
<b>Viscosity</b>	Not applicable
<b>Other information</b>	
<b>Explosive properties</b>	Dusts might form explosive mixtures with air.
<b>Oxidizing properties</b>	Not oxidizing. (due to its chemical structure)
<b>Particle size</b>	30 - 70 µm average
<b>9.2. Other information</b>	
<b>Density</b>	1.01 kg/m3 True volume mass estimated

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## 10. Stability and reactivity

<b>Reactivity</b>	Under normal conditions: stable.
<b>Chemical stability</b>	The product is stable under normal handling and storage conditions.
<b>Possibility of hazardous reactions</b>	In the presence of an ignition source: Dust may form explosive mixture in air.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the decomposition temperature. Will decompose at temperatures exceeding 60°C. Take measures to mitigate material spillage and avoid potential ignition sources such as ESD (ElectroStatic Discharges), flames, and sparks. Do not smoke nearby. Store away from moisture and heat to maintain the technical properties of the product. Remove all sources of ignition.
<b>Incompatible materials</b>	strong acids and oxidizing agents
<b>Hazardous decomposition products</b>	Thermal decomposition: Decomposition temperature: > 350 °C 300 - 350 °C: possible formation of:, Monomer and oligomer (white fumes) Temperature exceeding 350°C:, Thermal decomposition giving toxic and corrosive products :, Carbon monoxide, Ammonia, Amino derivatives Temperature exceeding 500 °C :, Formation of toxic products through combustion:, Carbon oxides, Hydrogen cyanide (hydrocyanic acid), (traces).

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## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	At high temperature, products of thermal decomposition can be irritating to respiratory system.
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<b>Skin contact</b>	May be considered as comparable to a similar product for which experimental results are: Non irritating to skin.	
<b>Eye contact</b>	May be considered as comparable to a similar product for which experimental results are: Not irritating to the eyes.	
<b>Ingestion</b>	May be considered as comparable to a similar product for which experimental results are: Slightly harmful by ingestion.	
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Not available.	
<b>Information on toxicological effects</b>		
<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.	
<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Zinc Oxide (CAS 1314-13-2)		
<u><b>Acute</b></u>		
<b>Inhalation</b>		
LC50	Mouse	> 5.7 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	> 5 g/kg
<b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.	
<b>Serious eye damage/eye irritation</b>	Contact with the product, when handled at high temperatures, can cause serious burns. At high temperature, products of thermal decomposition can be irritating to eyes.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Based on available data, the classification criteria are not met.	
<b>Skin sensitization</b>	Contact with the product, when handled at high temperatures, can cause serious burns. At high temperature, products of thermal decomposition can be irritating to eyes.	
<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.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
Not listed.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.	
<b>Specific target organ toxicity - single exposure</b>	Based on available data, the classification criteria are not met.	
	Inhalation: Possible irritation of respiratory system. Olfactory threshold: Dodecane-1-thiol 0,5 ppm. In man: (Alveolar dust fraction).	
<b>Specific target organ toxicity - repeated exposure</b>	Based on available data, the classification criteria are not met.	
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.	
<b>Further information</b>	Complete toxicity data are not available for this specific formulation	

## 12. Ecological information

<b>Aquatic toxicity</b>	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
<b>Ecotoxicity</b>	Harmful to aquatic life with long lasting effects.

Components	Species	Test Results
Ethylenebis(oxyethylene) Bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate] (CAS 36443-68-2)		
<b>Aquatic</b>		
<b>Acute</b>		
Fish	IC50 Lepomis macrochirus	> 100 mg/l, 3 h OECD 209

Components		Species	Test Results
<i>Chronic</i>			
Fish	NOEC	Fathead minnow ( <i>Pimephales promelas</i> )	0.009 mg/l, 32 d OECD 201
Zinc Oxide (CAS 1314-13-2)			
<i>Acute</i>			
	LC50	Oncorhynchus mykiss (rainbow trout)	0.169 mg/l, 96 h
	NOEC	Activated sludge	100 µg/l, 4 h
<i>Chronic</i>			
	NOEC	Pseudokirchneriella subcapitata	0.19 mg/l, 72 h
Other	NOEC	Red clover ( <i>Trifolium pratense</i> )	32 mg/kg
<b>Aquatic</b>			
<i>Acute</i>			
Algae	OECD 201	Green algae	0.136 mg/l
Crustacea	EC50	Water flea ( <i>Ceriodaphnia</i> )	0.147 - 0.53 mg/l, 48 h
<i>Chronic</i>			
Crustacea	NOEC	Various	0.014 - 0.4 mg/l
Fish	NOEC	Fish	0.025 - 0.53 mg/l
<b>Persistence and degradability</b>	No data is available on the degradability of any ingredients in the mixture.		
<b>Bioaccumulative potential</b>	Not available.		
<b>Mobility in soil</b>	Not available.		
<b>Other adverse effects</b>	Not available.		

### 13. Disposal considerations

<b>Disposal instructions</b>	Do not allow this material to drain into sewers/water supplies. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Material should be recycled if possible.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.

### 14. Transport information

#### DOT

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	No
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### IATA

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Packing group</b>	Not available.

<b>Transport hazard class(es)</b>	
<b>Marine pollutant</b>	No
<b>EmS</b>	Not available.
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>ADR</b>	
<b>UN number</b>	Not available.
<b>UN proper shipping name</b>	Not Regulated
<b>Transport hazard class(es)</b>	
<b>Class</b>	Not available.
<b>Subsidiary risk</b>	-
<b>Hazard No. (ADR)</b>	Not available.
<b>Tunnel restriction code</b>	Not available.
<b>Packing group</b>	Not available.
<b>Environmental hazards</b>	No
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Further information</b>	Not a dangerous good under DOT, IATA, ADR, IMDG, or RID.

## 15. Regulatory information

<b>US federal regulations</b>	<p>This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Additional information is given in the Safety Data Sheet. US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.</p> <p>All ingredients are listed or exempt.</p> <p>US TSCA 12(b): Does not contain listed chemicals.</p>	
<b>Toxic Substances Control Act (TSCA)</b>	All components of the mixture on the TSCA 8(b) inventory are designated "active".	
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.	
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>		
	Zinc Oxide (CAS 1314-13-2)	Listed.
<b>SARA 304 Emergency release notification</b>	Not regulated.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	Not listed.	
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>		
<b>SARA 302 Extremely hazardous substance</b>	Not listed.	
<b>SARA 311/312 Hazardous chemical</b>	No	
<b>Other federal regulations</b>		
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	No intentionally added HAP substances.	
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.	
<b>Safe Drinking Water Act (SDWA)</b>	Contains component(s) regulated under the Safe Drinking Water Act.	
<b>US state regulations</b>		
<b>California Proposition 65</b>	<p>California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>.</p>	
<b>Other information</b>	US TSCA 6(h): Based on a review of the product composition, this product is not known to contain TSCA Section 6(h) Persistent, Bioaccumulative, and Toxic Chemicals (PBTs).	



## Regulatory information

Additional information is given in the Safety Data Sheet. HP complies with chemical regulatory requirements in chemical substance notification laws, where applicable. All chemical substances are notified or exempt from notification or listed in the inventory as existing substances in the following countries: US (TSCA), Canada (DSL/NDSL), Australia (AICIS), Japan (ISHL, ENCS), Philippines (PICCS), New Zealand (NZIoC) and China (IECSC). For guidance on importation and/or additional requirements for registration schemes such as EAEU, EU, South Korea, Turkey, UK, India and Taiwan, please contact the Sustainability and Compliance Center (sustainability@hp.com).

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## 16. Other information, including date of preparation or last revision

**Issue date** 02-Apr-2025

**Revision date** 16-Jul-2025

**Version #** 02

**Other information** This SDS was prepared in accordance with USA OSHA Hazard Communications regulation (29 CFR 1910.1200).

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**Revision information** 1. Product and Company Identification: Physical States

## Explanation of abbreviations

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists
<b>Acute Tox.</b>	Acute toxicity
<b>Aquatic Acute</b>	Short-term (acute) aquatic hazard
<b>Aquatic Chronic</b>	Long-term (chronic) aquatic hazard
<b>Asp. Tox.</b>	Aspiration hazard
<b>Carc.</b>	Carcinogenicity
<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>Eye Dam.</b>	Serious eye damage
<b>Eye Irrit.</b>	Eye Irritation
<b>Flam. Liq.</b>	Flammable liquids
<b>Flam. Sol.</b>	Flammable solids
<b>Lact.</b>	Effects on or via lactation
<b>Muta.</b>	Germ cell mutagenicity
<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>Ox. Liq.</b>	Oxidising liquids
<b>Ozone</b>	Hazardous to the ozone layer
<b>PEL</b>	Permissible Exposure Limit
<b>Press. Gas</b>	Gases under pressure
<b>RCRA</b>	Resource Conservation and Recovery Act
<b>REC</b>	Recommended
<b>REL</b>	Recommended Exposure Limit
<b>Repr.</b>	Reproductive toxicity
<b>Resp. Sens.</b>	Respiratory sensitization
<b>SARA</b>	Superfund Amendments and Reauthorization Act of 1986
<b>Skin Corr.</b>	Skin corrosion
<b>Skin Irrit.</b>	Skin irritation
<b>Skin Sens.</b>	Skin sensitization
<b>STEL</b>	Short-Term Exposure Limit
<b>STOT RE</b>	Specific target organ toxicity - repeated exposure
<b>STOT SE</b>	Specific target organ toxicity - single exposure
<b>TCLP</b>	Toxicity Characteristics Leaching Procedure
<b>TLV</b>	Threshold Limit Value
<b>TSCA</b>	Toxic Substances Control Act