

ICP Construction Inc

Version No: 3.4

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **12/04/2023** Print Date: **12/04/2023** S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Plexichrome Ultra Performance Velocity Blue - PLVB-30	
Synonyms	Not Available	
Other means of identification	Not Available	

Recommended use of the chemical and restrictions on use

Relevant identified uses Sports Surface

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	ICP Construction Inc	
Address	150 Dascomb Road Andover MA 01810 United States	
Telephone	1-866-667-5119 1-978-623-9987	
Fax	Not Available	
Website	www.icpgroup.com	
Email	sds@icpgroup.com	

Emergency phone number

Emergency priorie i		
Association / Org	ganisation	ChemTel
Emergency	telephone numbers	1-800-255-3924
Other emergency	telephone numbers	1-813-248-0585

SECTION 2 Hazard(s) identification

Classification of the substance or mixture



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification Carcinogenicity Category 1A, Specific Target Organ Toxicity - Repeated Exposure Category 1

Label elements

Ladel elements	
Hazard pictogram(s)	
Signal word	Danger
Hazard statement(s)	
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P103	P103 Read label before use.	

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves and protective clothing.
P270	Do not eat, drink or smoke when using this product.
P202	Do not handle until all safety precautions have been read and understood.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.	
P314	Get medical advice/attention if you feel unwell.	

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501 Dispose

Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
107-21-1	0.1-1	ethylene glycol
13463-67-7*	1-5	Titanium Dioxide Ti02
14808-60-7*	10-30	silica crystalline - quartz
14464-46-1	1-5	cristobalite
25265-77-4	<1	2.2.4-trimethyl-1.3-pentanediol monoisobutyrate
1333-86-4	0.1-1	carbon black

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 First-aid measures

Description of first aid measures

Eye Contact	If this product comes in contact with eyes: • Wash out immediately with water. • If irritation continues, seek medical attention. • Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures

Extinguishing media

- Foam.
- Dry chemical powder.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result		
Special protective equipment a	and precautions for fire-fighters		
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. 		
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Combustion products include: carbon dioxide (CO2) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes. 		

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Remove all ignition sources. Clean up all spills immediately. 	
Major Spills	Moderate hazard. ▶ Clear area of personnel and move upwind.	

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling	
Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. DO NOT allow clothing wet with material to stay in contact with skin
Other information	 Store in original containers. Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Avoid reaction with oxidising agents

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	ethylene glycol	Ethylene glycol	Not Available	Not Available	Not Available	See Appendix D
US OSHA Permissible Exposure Limits (PELs) Table Z-1	Titanium Dioxide Ti02	Titanium dioxide - Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Titanium Dioxide Ti02	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Titanium Dioxide Ti02	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available

Source	Ingredient	Material name	TWA	STEL	Peak	Notes		
US NIOSH Recommended Exposure Limits (RELs)	Tita		Not Available	Not Available	Not Available	Ca; See Appendix A		
US OSHA Permissible Exposure Limits (PELs) Table Z-1	silica crystalline - quartz	Quartz - respirable	0.05 mg/m3	Not Available	Not Available	Not Available		
US OSHA Permissible Exposure Limits (PELs) Table Z-3	silica crystalline - quartz	Quartz (Respirable) (%SiO2+5) mppcf Available Available line - Silica, crystalline (as respirable dust) 0.05 mg/m3 Not Available Not Available Ca; See App		Not Available				
US NIOSH Recommended Exposure Limits (RELs)	silica crystalline - quartz		0.05 mg/m3			Ca; See Appendix A		
US OSHA Permissible Exposure Limits (PELs) Table Z-1	cristobalite	Cristobalite - respirable	0.05 mg/m3			Not Available		
US OSHA Permissible Exposure Limits (PELs) Table Z-3	cristobalite	Silica: Crystalline: Cristobalite	Not Available	Not Available	Not Available	Use 1/2 the value calculated from the count or mass formulae for quartz.		
US NIOSH Recommended Exposure Limits (RELs)	cristobalite	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D		
US OSHA Permissible Exposure Limits (PELs) Table Z-1	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Not Available		
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available		
US OSHA Permissible Exposure Limits (PELs) Table Z-3	carbon black	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available		
US NIOSH Recommended Exposure Limits (RELs)	carbon black	Carbon black	3.5 mg/m3	Not Available	Not Available	Ca; TWA 0.1 mg PAHs/m3 [Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)] See Appendix A See Appendix C		

Emergency Limits					
Ingredient	TEEL-1	TEEL-2		TEEL-3	
ethylene glycol	30 ppm	150 ppm		900 ppm	
Titanium Dioxide Ti02	30 mg/m3	330 mg/m3		2,000 mg/m3	
silica crystalline - quartz	0.075 mg/m3	33 mg/m3		200 mg/m3	
cristobalite	0.075 mg/m3	33 mg/m3		200 mg/m3	
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	13 mg/m3	140 mg/m3		840 mg/m3	
carbon black	9 mg/m3	99 mg/m3		590 mg/m3	
Ingredient	Original IDLH		Revised	IDLH	
ethylene glycol	Not Available		Not Avai	lable	
Titanium Dioxide Ti02	5,000 mg/m3		Not Avai	lable	
silica crystalline - quartz	25 mg/m3 / 50 mg/m3		Not Available		
cristobalite	Not Available	Not Available			
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	Not Available		Not Avai	lable	
carbon black	1,750 mg/m3		Not Avai	lable	

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
Individual protection measures, such as personal protective equipment	
Eye and face protection	 Safety glasses with side shields. Chemical goggles.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Body protection	See Other protection below

Other protection	 Overalls. P.V.C apron.
------------------	---

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

If inhalation risk above the TLV exists, wear approved dust respirator.

Use respirators with protection factors appropriate for the exposure level.

- ▶ Up to 5 X TLV, use valveless mask type; up to 10 X TLV, use 1/2 mask dust respirator
- ▶ Up to 50 X TLV, use full face dust respirator or demand type C air supplied respirator
- Up to 500 X TLV, use powered air-purifying dust respirator or a Type C pressure demand supplied-air respirator
- Over 500 X TLV wear full-face self-contained breathing apparatus with positive pressure mode or a combination respirator with a Type C positive pressure supplied-air full-face respirator and an auxiliary self-contained breathing apparatus operated in pressure demand or other positive pressure mode
- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Light sensitive.		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	>130	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	85.71

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

Inhaled

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an

	occupational setting.						
Ingestion	The material has NOT been classified by EC Directives or ot corroborating animal or human evidence.	her classific	ation systems as 'harmful by ingestion	'. This is because of the lack of			
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.						
Eye	Although the liquid is not thought to be an irritant (as classifie characterised by tearing or conjunctival redness (as with win		rectives), direct contact with the eye m	ay produce transient discomfort			
Chronic	Studies show that inhaling this substance for over a long per Strong evidence exists that this substance may cause irreve Skin contact with the material is more likely to cause a sensi Toxic: danger of serious damage to health by prolonged exp This material can cause serious damage if one is exposed to produce severe defects. Crystalline silicas activate the inflammatory response of whit silicas reduces lung capacity and predisposes to chest infect	rsible mutati tisation reac osure throug o it for long p e blood cells	ions (though not lethal) even following ttion in some persons compared to the gh inhalation, in contact with skin and i periods. It can be assumed that it conta	a single exposure. general population. f swallowed. ains a substance which can			
Plexichrome Ultra	ΤΟΧΙCITY		IDDITATION				
Performance Velocity Blue -	Not Available		IRRITATION Not Available				
PLVB-30	Not Available		Not Available				
	ΤΟΧΙΟΙΤΥ	IRRITA	NTION				
	dermal (mouse) LD50: >3500 mg/kg ^[1]						
	Oral (Rat) LD50: >2000 mg/kg ^[2]						
			abbit): 12 mg/m3/3D abbit): 1440mg/6h-moderate				
ethylene glycol			abbit): 500 mg/24h - mild				
			o adverse effect observed (not irritatin	n)[1]			
	Skin (rabbit): 555 mg(open)-mild						
	Skin: no adverse effect observed (not irritating) ^[1]						
	ΤΟΧΙΟΙΤΥ	IRR	RITATION				
	dermal (hamster) LD50: >=10000 mg/kg ^[2]	Eye	e: no adverse effect observed (not irrita	ating) ^[1]			
Titanium Dioxide Ti02	Inhalation(Rat) LC50: >2.28 mg/l4h ^[1]	Ski	Skin: no adverse effect observed (not irritating) ^[1]				
	Oral (Rat) LD50: >=2000 mg/kg ^[1]						
	TOXICITY IRRITATION						
silica crystalline - quartz	Inhalation (Human)LCLo: 0.3 mg/m3/10Y ^[2]			Not Available			
	Inhalation (Human)TCLo: 16 mppcf*/8H/17.9Y ^[2]						
	Inhalation (Rat)TCLo: 50 mg/m3/6H/71W ^[2]						
	ΤΟΧΙΟΙΤΥ		IRRITATION				
cristobalite	Not Available		Not Available				
	ΤΟΧΙΟΙΤΥ	IRRIT	ATION				
	dermal (guinea pig) LD50: >19 mg/kg ^[2]		no adverse effect observed (not irritati	ng)[1]			
2.2.4 trimethyl 1.2 pentanodial			Eyes - Moderate irritant *				
2,2,4-trimethyl-1,3-pentanediol							
monoisobutyrate	Oral (Rat) LD50: >3200 mg/kg ^[2]	Skin -	Slight irritant *				
	Urai (Kat) LDsu: >3200 mg/kg ^{is}		· Slight irritant * (rabbit): mild ***				
	Urai (Kat) LD50: >3200 mg/kg ⁱ⁻³	Skin (-	ng) ^[1]			
	Urai (Kai) LD50: >3200 mg/kg ⁱ⁻³	Skin ((rabbit): mild ***	ng)[1]			
	TOXICITY	Skin (Skin:	rabbit): mild *** no adverse effect observed (not irritati				
		Skin (Skin:	rabbit): mild *** no adverse effect observed (not irritati				
monoisobutyrate	ТОХІСІТҮ	Skin (Skin: IRRITA Eye: no	rabbit): mild *** no adverse effect observed (not irritati)[1]			

Mutagenicity	×	Aspiration Hazard	×						
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	*						
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×						
Skin Irritation/Corrosion	×	Reproductivity	×						
Acute Toxicity	×	Carcinogenicity	✓						
silica crystalline - quartz & CRISTOBALITE		ARC) has classified occupational exp	RC as Group 1: CARCINOGENIC TO HUMANS osures to respirable (<5 um) crystalline silica as being evidence from epidemiological studies of humans for						
CARBON BLACK	Inhalation (rat) TCLo: 50 mg/m3/6h/90D-I Nil reported No significant acute toxicological data identified in literature search. WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.								
2,2,4-TRIMETHYL- 1,3-PENTANEDIOL MONOISOBUTYRATE	conjunctivitis.	at *** * [SWIFT] ** [Eastman] *** [Per ged contact causing inflammation. Re							
CRISTOBALITE	nhalation (human) TCLo: 16 mppcf*/8H/17.9y-I * Millions of particles per cubic foot								
ETHYLENE GLYCOL	[Estimated Lethal Dose (human) 100 ml; RTECS que For ethylene glycol: Ethylene glycol is quickly and extensively absorbed t through the airways; absorption through skin is appar	hroughout the gastrointestinal tract. I	tive effector in rats (birth defects). Mutagenic to rat cells imited information suggests that it is also absorbed						
Plexichrome Ultra Performance Velocity Blue - PLVB-30	Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema.								

Legend: 🗙

X − Data either not available or does not fill the criteria for classification
→ − Data available to make classification

SECTION 12 Ecological information

Tox	ici	ŧν
108	ICI	ιγ

Plexichrome Ultra Performance Velocity Blue -	Endpoint		Test Duration (hr)		Species	Value		Source		
PLVB-30	Not Available Not Available				Not Available Not Avail			ilable Not Available		
	Endpoint	Tes	st Duration (hr)	Species			Value		Source	
	EC50	96h		Algae or other aquatic plants			6500-13000m	g/l	1	
ethylene glycol	EC50	48h	ı	Crustad	ea		>100mg/l		2	
	LC50	96h	ı	Fish			8050mg/l		4	
	EC50(ECx)	Not	t Available	Algae o	r other aquatic plants		6500-7500mg	/I	1	
	Endpoint	Те	est Duration (hr)	Spec	ies		Value		Source	
	BCF	1008h		Fish					7	
	EC50	72h		Algae or other aquatic plants		3	<1.1-9.6 3.75-7.58mg/l		4	
Titanium Dioxide Ti02	EC50	48h		Crustacea			1.9mg/l		2	
	EC50	96h		Algae or other aquatic plants			179.05mg/l		2	
	LC50	96h		Fish			1.85-3.06n	ng/l	4	
	NOEC(ECx)	672h		Fish			>=0.004mg/L 2		2	
	Endpoint		Test Duration (hr)		Species	Value		Source		
silica crystalline - quartz	Not Available		Not Available		Not Available	Not Availa	able	Not Avai	lable	
	Endpoint	Test Duration (hr)			Species			Source		
cristobalite	Not Available		Not Available		Not Available Not Ava		ailable Not Availa		lable	
	Endpoint	Test Duration (hr)		Species			Value		e.	
2,4-trimethyl-1,3-pentanediol	EC50		2h		Algae or other aquatic plants			Not Available		
monoisobutyrate	EC50		Bh		Crustacea			2		
	NOEC(ECx)	7	2h	Algoe	Algae or other aquatic plants			1		

	LC50	96h	Fish		16mg/l	Not Available
	Endpoint	Test Duration (hr)	Species	Va	lue	Source
	EC50	72h	Algae or other aquatic plants	>0	.2mg/l	2
carbon black	EC50	48h	Crustacea	33	.076-41.968mg	g/l 4
	LC50	96h	Fish	>1	00mg/l	2
	NOEC(ECx)	24h	Crustacea	32	00mg/l	1
			· · · · · · · · · · · · · · · · · · ·			
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EP Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (J					
	- Bioconcentration Data 8. Vendor Data					

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
ethylene glycol	LOW (Half-life = 24 days)	LOW (Half-life = 3.46 days)
Titanium Dioxide Ti02	HIGH	HIGH
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
ethylene glycol	LOW (BCF = 200)
Titanium Dioxide Ti02	LOW (BCF = 10)
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	LOW (LogKOW = 2.9966)

Mobility in soil

Ingredient	Mobility
ethylene glycol	HIGH (KOC = 1)
Titanium Dioxide Ti02	LOW (KOC = 23.74)
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	LOW (KOC = 22.28)

SECTION 13 Disposal considerations

Waste treatment methods	
Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal.

SECTION 14 Transport information

Labels Required	
Marine Pollutant	NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
ethylene glycol	Not Available
Titanium Dioxide Ti02	Not Available
silica crystalline - quartz	Not Available
cristobalite	Not Available

Product name	Group
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	Not Available
carbon black	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
ethylene glycol	Not Available
Titanium Dioxide Ti02	Not Available
silica crystalline - quartz	Not Available
cristobalite	Not Available
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	Not Available
carbon black	Not Available

SECTION 15 Regulatory information

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

ethylene glycol is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	US Clean Air Act - Hazardous Air Pollutants
US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants	US DOE Temporary Emergency Exposure Limits (TEELs)
US - California Proposition 65 - Maximum Allowable Dose Levels (MADLs) for	US EPA Integrated Risk Information System (IRIS)
Chemicals Causing Reproductive Toxicity	US EPCRA Section 313 Chemical List
US - California Proposition 65 - Reproductive Toxicity	US NIOSH Recommended Exposure Limits (RELs)
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Massachusetts - Right To Know Listed Chemicals	
US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)	
Titanium Dioxide Ti02 is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	US - Massachusetts - Right To Know Listed Chemicals
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US DOE Temporary Emergency Exposure Limits (TEELs)
Monographs	US NIOSH Carcinogen List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US NIOSH Recommended Exposure Limits (RELs)
Monographs - Group 2B: Possibly carcinogenic to humans	US OSHA Permissible Exposure Limits (PELs) Table Z-1
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for	US OSHA Permissible Exposure Limits (PELs) Table Z-3
Manufactured Nanomaterials (MNMS)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5	
US - California Proposition 65 - Carcinogens	
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List	
silica crystalline - quartz is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	US National Toxicology Program (NTP) 15th Report Part A Known to be Human
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC	Carcinogens
Monographs	US NIOSH Carcinogen List
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US NIOSH Recommended Exposure Limits (RELs)
Monographs - Group 1: Carcinogenic to humans	US OSHA Carcinogens Listing
US - California Proposition 65 - Carcinogens	US OSHA Permissible Exposure Limits (PELs) Table Z-1
US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65	US OSHA Permissible Exposure Limits (PELs) Table Z-3
List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Massachusetts - Right To Know Listed Chemicals	
US DOE Temporary Emergency Exposure Limits (TEELs)	
cristobalite is found on the following regulatory lists	
Chemical Footprint Project - Chemicals of High Concern List	US NIOSH Carcinogen List
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for	US NIOSH Recommended Exposure Limits (RELs)
Manufactured Nanomaterials (MNMS)	US OSHA Carcinogens Listing
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for	US OSHA Permissible Exposure Limits (PELs) Table Z-1

Air Pollutants Other Than PM-2.5

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

2,2,4-trimethyl-1,3-pentanediol monoisobutyrate is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US DOE Temporary Emergency Exposure Limits (TEELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US DOE Temporary Emergency Exposure Limits (TEELs) carbon black is found on the following regulatory lists

 Chemical Footprint Project - Chemicals of High Concern List
 US - Massac

 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
 US DOE Tem

 Monographs
 US NIOSH C

 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
 US NIOSH C

 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC
 US NIOSH C

 Monographs - Group 2B: Possibly carcinogenic to humans
 US OSHA Pe

 International WHO List of Proposed Occupational Exposure Limit (OEL) Values for
 US OSHA Pe

 Manufactured Nanomaterials (MNMS)
 US Tavia Sut

US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5

US - California Proposition 65 - Carcinogens

US - California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65 List

Additional Regulatory Information

Not Applicable

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 hazard categories

Flammable (Gases, Aerosols, Liquids, or Solids)	No	
Gas under pressure	No	
Explosive	No	
Self-heating	No	
Pyrophoric (Liquid or Solid)	No	
Pyrophoric Gas	No	
Corrosive to metal	No	
Oxidizer (Liquid, Solid or Gas)	No	
Organic Peroxide	No	
Self-reactive	No	
In contact with water emits flammable gas	No	
Combustible Dust	No	
Carcinogenicity	Yes	
Acute toxicity (any route of exposure)	No	
Reproductive toxicity	No	
Skin Corrosion or Irritation	No	
Respiratory or Skin Sensitization	No	
Serious eye damage or eye irritation	No	
Specific target organ toxicity (single or repeated exposure)	Yes	
Aspiration Hazard	No	
Germ cell mutagenicity	No	
Simple Asphyxiant	No	
Hazards Not Otherwise Classified		

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Name	Reportable Quantity in Pounds (Ib)	Reportable Quantity in kg
ethylene glycol	5000	2270

US. EPCRA Section 313 Toxic Release Inventory (TRI) (40 CFR 372)

This product contains the following EPCRA section 313 chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know-Act of 1986 (40 CFR 372):

CAS No	%[weight]	Name	
107-21-1	0.1-1	ethylene glycol	
This information must be included in all SDSs that are copied and distributed for this material.			

Additional Federal Regulatory Information

Not Applicable

State Regulations

US. California Proposition 65

WARNING: This product can expose you to chemicals including Titanium Dioxide Ti02, silica crystalline - quartz, cristobalite, carbon black, which are known to the State of California to cause cancer, and ethylene glycol, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov

Additional State Regulatory Information

Not Applicable

National Inventory Status

US - Massachusetts - Right To Know Listed Chemicals US DOE Temporary Emergency Exposure Limits (TEELs)

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

US OSHA Permissible Exposure Limits (PELs) Table Z-1

US OSHA Permissible Exposure Limits (PELs) Table Z-3

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (ethylene glycol; Titanium Dioxide Ti02; silica crystalline - quartz; cristobalite; 2,2,4-trimethyl-1,3-pentanediol monoisobutyrate; carbon black)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

SECTION 16 Other information

Revision Date	12/04/2023
Initial Date	08/24/2020

CONTACT POINT

PLEASE NOTE THAT TITANIUM DIOXIDE IS NOT PRESENT IN CLEAR OR NEUTRAL BASES

SDS Version Summary

Version	Date of Update	Sections Updated
2.4	12/04/2023	Toxicological information - Chronic Health, Hazards identification - Classification, Composition / information on ingredients - Ingredients, Exposure controls / personal protection - Personal Protection (hands/feet), Identification of the substance / mixture and of the company / undertaking - Supplier Information

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Definitions and abbreviations

- PC TWA: Permissible Concentration-Time Weighted Average
- PC STEL: Permissible Concentration-Short Term Exposure Limit
- IARC: International Agency for Research on Cancer
- ACGIH: American Conference of Governmental Industrial Hygienists
- STEL: Short Term Exposure Limit
- TEEL: Temporary Emergency Exposure Limit.
- IDLH: Immediately Dangerous to Life or Health Concentrations
- ES: Exposure Standard
- OSF: Odour Safety Factor
- NOAEL: No Observed Adverse Effect Level
- LOAEL: Lowest Observed Adverse Effect Level
- TLV: Threshold Limit Value
- LOD: Limit Of Detection
- OTV: Odour Threshold Value
- BCF: BioConcentration Factors
- BEI: Biological Exposure Index
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
- AIIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory
- NZIoC: New Zealand Inventory of Chemicals
- PICCS: Philippine Inventory of Chemicals and Chemical Substances
- TSCA: Toxic Substances Control Act
- TCSI: Taiwan Chemical Substance Inventory
- INSQ: Inventario Nacional de Sustancias Químicas
 NCI: National Chemical Inventory
- + FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

Powered by AuthorITe, from Chemwatch.