SAFETY DATA SHEETS

This SDS packet was issued with item: 070495507

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

070495515 070495523 071088004

COLTENE

ONE COAT 7 UNIVERSAL

Coltène/Whaledent AG

Version No: 3.3

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

Issue Date: 16/05/2023 Print Date: 22/10/2024 L.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	ONE COAT 7 UNIVERSAL
Chemical Name	Not Applicable
Synonyms	Not Available
Proper shipping name	Ethanol or Ethyl alcohol; Ethanol solutions or Ethyl alcohol solutions
Chemical formula	Not Applicable
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	Medical device, for dental use only
	Use according to manufacturer's directions.

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

Registered company name	Coltène/Whaledent AG	
Address	Feldwiesenstrasse 20 Altstätten 9450 Switzerland	
Telephone	+41 (71) 75 75 300	
Fax	+41 (71) 75 75 301	
Website	www.coltene.com	
Email	msds@coltene.com	

Emergency phone number

Association / Organisation	CHEMWATCH EMERGENCY RESPONSE (24/7)	
Emergency telephone number(s)	+1 855-237-5573	
Other emergency telephone number(s)	+61 3 9573 3188	

Once connected and if the message is not in your preferred language then please dial 01

Una vez conectado y si el mensaje no está en su idioma preferido, por favor marque 02

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

NFPA 704 diamond



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

Flammable Liquids Category 3, Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2

Label elements



Signal word Warning

Hazard statement(s)

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	
P233	Keep container tightly closed.	
P280	Wear protective gloves, protective clothing, eye protection and face protection.	
P261	Avoid breathing mist/vapours/spray.	
P273	Avoid release to the environment.	
P264	Wash all exposed external body areas thoroughly after handling.	
P272	Contaminated work clothing should not be allowed out of the workplace.	

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.	
P370+P378	In case of fire: Use alcohol resistant foam or normal protein foam to extinguish.	
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P391	Collect spillage.	
P302+P352	IF ON SKIN: Wash with plenty of water.	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
P332+P313	If skin irritation occurs: Get medical advice/attention.	
P362+P364	Take off contaminated clothing and wash it before reuse.	

Precautionary statement(s) Storage

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501

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
72869-86-4	15-25	diurethane dimethacrylate
868-77-9	5-15	2-hydroxyethyl methacrylate
85590-00-7	5-10	10-methacryloyloxydecyl dihydrogen phosphate
64-17-5	35-40	ethanol
1483-72-3	<1	diphenyliodonium chloride
75980-60-8	<=1	diphenyl(2,4,6-trimethylbenzoyl)phosphine

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 the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs 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 or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested.
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

- Alcohol stable foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

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 and precautions for fire-fighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	 Liquid and vapour are flammable. Moderate fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Moderate explosion hazard when exposed to heat or flame. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include:

carbon dioxide (CO2) carbon monoxide (CO) nitrogen oxides (NOx)
phosphorus oxides (POx) other pyrolysis products typical of burning organic material.

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. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up. Collect residues in a flammable waste container.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. No smoking, naked lights or ignition sources. Increase ventilation. Stop leak if safe to do so. Water spray or fog may be used to disperse / absorb vapour. Contain spill with sand, earth or vermiculite. Use only spark-free shovels and explosion proof equipment. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 Handling and storage

Precautions for safe hand	ing
Safe handling	 Wear protective clothing when risk of overexposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. Avoid smoking, naked lights or ignition sources. Avoid generation of static electricity. Use spark-free tools when handling. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. DO NOT allow clothing wet with material to stay in contact with skin
Other information	 Store away from incompatible materials in a cool, dry, well-ventilated area. No smoking, naked lights, heat or ignition sources. Keep adsorbents for leaks and spills readily available. Protect containers against physical damage and check regularly for leaks.

Conditions for safe storage, including any incompatibilities

-	
Suitable container	 Recommended storage temperature: 4 - 8 °C Packing as supplied by manufacturer. Check that containers are clearly labelled and free from leaks.
Storage incompatibility	 Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates. Avoid strong bases.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	ethanol	Ethyl alcohol (Ethanol)	1000 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	ethanol	Ethyl alcohol	1000 ppm / 1900 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	diphenyliodonium chloride	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	diphenyliodonium chloride	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	diphenyliodonium chloride	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	diphenyliodonium chloride	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	diphenyliodonium chloride	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
diurethane dimethacrylate	120 mg/m3	1,300 mg/m3	7,900 mg/m3
2-hydroxyethyl methacrylate	1.9 mg/m3	21 mg/m3	1,000 mg/m3
ethanol	Not Available	Not Available	15000* ppm

Ingredient	Original IDLH	Revised IDLH
diurethane dimethacrylate	Not Available	Not Available
2-hydroxyethyl methacrylate	Not Available	Not Available
10-methacryloyloxydecyl dihydrogen phosphate	Not Available	Not Available
ethanol	Not Available	Not Available
diphenyliodonium chloride	Not Available	Not Available
diphenyl(2,4,6- trimethylbenzoyl)phosphine	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
diurethane dimethacrylate	E	≤ 0.1 ppm	
2-hydroxyethyl methacrylate	E	≤ 0.1 ppm	
10-methacryloyloxydecyl dihydrogen phosphate	E	≤ 0.1 ppm	
diphenyl(2,4,6- trimethylbenzoyl)phosphine	E	≤ 0.01 mg/m³	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure		

band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

MATERIAL DATA

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no-observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits (TLV STELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to

warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

cause inflammation

- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

IFRA Prohibited Fragrance Substance

The International Fragrance Association (IFRA) Standards form the basis for the globally accepted and recognized risk management system for the safe use of fragrance ingredients and are part of the IFRA Code of Practice. This is the self-regulating system of the industry, based on risk assessments carried out by an independent Expert Panel

Tenth Annual Report on Carcinogens: Substance anticipated to be Carcinogen

[National Toxicology Program: U.S. Dep. of Health & Human Services 2002]

For ethanol:

Odour Threshold Value: 49-716 ppm (detection), 101 ppm (recognition)

Eye and respiratory tract irritation do not appear to occur at exposure levels of less than 5000 ppm and the TLV-TWA is thought to provide an adequate margin of safety against such effects. Experiments in man show that inhalation of 1000 ppm caused slight symptoms of poisoning and 5000 ppm caused strong stupor and morbid sleepiness. Subjects exposed to 5000 ppm to 10000 ppm experienced smarting of the eyes and nose and coughing. Symptoms disappeared within minutes. Inhalation also causes local irritating effects to the eyes and upper respiratory tract, headaches, sensation of heat intraocular tension, stupor, fatigue and a need to sleep. At 15000 ppm there was continuous lachrymation and coughing.

These exposure guidelines have been derived from a screening level of risk assessment and should not be construed as unequivocally safe limits. ORGS represent an 8-hour time-weighted average unless specified otherwise.

CR = Cancer Risk/10000; UF = Uncertainty factor:

TLV believed to be adequate to protect reproductive health:

LOD: Limit of detection

Toxic endpoints have also been identified as:

D = Developmental; R = Reproductive; TC = Transplacental carcinogen

Jankovic J., Drake F.: A Screening Method for Occupational Reproductive

American Industrial Hygiene Association Journal 57: 641-649 (1996)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

ClassOSF Description

A 550 Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities

- B $\begin{array}{c} 26-\\ 550 \end{array}$ As "A" for 50-90% of persons being distracted
- C 1-26 As "A" for less than 50% of persons being distracted

1

D 0.18-1 10-50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached

E <0.18 As "D" for less than 10% of persons aware of being tested

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-c engineering controls can be highly effective in protecting workers and will typically be independent of worker inter provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contar designed properly. The design of a ventilation system must match the particular process and chemical or contar Employers may need to use multiple types of controls to prevent employee overexposure. For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system Ventilation equipment should be explosion-resistant. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the " velocities" of fresh circulating air required to effectively remove the contaminant.	lesigned eractions to and ventilation aminant if ninant in use. may be required. capture
	Type of Contaminant:	Air Speed:
	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)

	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) 0.5-1 m/s (100-200 f/min.)		
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (200-500 f/min.)		
	Within each range the appropriate value depends on:		
	Lower end of the range	Upper end of the range	
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	
	3: Intermittent, low production.	3: High production, heavy use	
	4: Large hood or large air mass in motion	4: Small hood-local control only	
	Simple theory shows that air velocity falls rapidly with distance generally decreases with the square of distance from the ext extraction point should be adjusted, accordingly, after referer extraction fan, for example, should be a minimum of 1-2 m/s meters distant from the extraction point. Other mechanical co apparatus, make it essential that theoretical air velocities are installed or used. • Adequate ventilation is typically taken to be that which limits the building, room or enclosure containing the dangerous sul • Ventilation for plant and machinery is normally considered a substance that might potentially be present to no more than 2 can be acceptable where additional safeguards are provided example, gas detectors linked to emergency shutdown of the exhaust ventilation on solvent evaporating ovens and gas tur • Temporary exhaust ventilation systems may be provided for maintenance in tanks or other confined spaces or in an emer should be carefully considered The atmosphere should be carefully considered and substance does not exceed 10% of the LEL (irrespective of the	ce away from the opening of a simple extraction pipe. raction point (in simple cases). Therefore the air spee nee to distance from the contaminating source. The a (200-400 f/min.) for extraction of solvents generated onsiderations, producing performance deficits within t e multiplied by factors of 10 or more when extraction s is the average concentration to no more than 25% of t batance. adequate if it limits the average concentration of any of 25% of the LEL. However, an increase up to a maxim to prevent the formation of a hazardous explosive at e process might be used together with maintaining or rbine enclosures. r non-routine higher-risk activities, such as cleaning, r rgency after a release. The work procedures for such continuously monitored to ensure that ventilation is ac rentilation should ensure that the concentration of the he provision of suitable breathing apparatus)	Velocity ed at the ir velocity at the in a tank 2 he extraction systems are the LEL within dangerous the LEL within dangerous num 50% LEL mosphere. For increasing the repair or activities dequate and the e dangerous
Individual protection measures, such as personal protective equipment			
Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. 		
Skin protection	See Hand protection below		
Hands/feet protection	 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. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. 		
Body protection	See Other protection below		
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower. 		

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the *computer-generated* selection:

ONE COAT 7 UNIVERSAL

Material	СРІ
BUTYL	A
NEOPRENE	A
NITRILE	A

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-

Page 8 of 15

ONE COAT 7 UNIVERSAL

NITRILE+PVC	A	1
PE/EVAL/PE	Α	^
PVC	В	A
NATURAL RUBBER	С	di
NATURAL+NEOPRENE	С	Ν

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis,

factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

	up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^
--	----------------	---	--------	---------------

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Appearance	Yellow		
Physical state	Liquid	Relative density (Water = 1)	1.0
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)	28	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	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	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available
Heat of Combustion (kJ/g)	Not Available	Ignition Distance (cm)	Not Available
Flame Height (cm)	Not Available	Flame Duration (s)	Not Available
Enclosed Space Ignition Time Equivalent (s/m3)	Not Available	Enclosed Space Ignition Deflagration Density (g/m3)	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
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

	ΤΟΧΙCITY	IRRITATION
ONE COAT / UNIVERSAL	Not Available	Not Available
	ΤΟΧΙCITY	IRRITATION
diurethane dimethacrylate	dermal (rat) LD50: >2000 mg/kg * ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (Rat) LD50: >2000 mg/kg * ^[2]	Skin: no adverse effect observed (not irritating) ^[1]
	ΤΟΧΙCITY	IRRITATION
	Dermal (rabbit) LD50: >3000 mg/kg ^[2]	Eye: adverse effect observed (irritating) ^[1]
2-hydroxyethyl methacrylate	Oral (Rat) LD50: >=2000 mg/kg ^[1]	Skin (Human - woman): 2%
		Skin (Human - woman): 2%/48H
		Skin: no adverse effect observed (not irritating) ^[1]
10-methacryloyloxydecyl	ΤΟΧΙΟΙΤΥ	IRRITATION
dihydrogen phosphate	Not Available	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
	Dermal (rabbit) LD50: 17100 mg/kg ^[1]	Eye (Rodent - rabbit): 0.1mL
	Inhalation (Rat) LC50: 64000 ppm4h ^[2]	Eye (Rodent - rabbit): 100mg/4S - Moderate
	Oral (Rat) LD50: 7060 mg/kg ^[2]	Eye (Rodent - rabbit): 100uL - Moderate
		Eye (Rodent - rabbit): 500mg - Severe
ethanol		Eye (Rodent - rabbit): 500mg/24H - Mild
		Eye: adverse effect observed (irritating) ^[1]
		Eye: no adverse effect observed (not irritating) ^[1]
		Skin (Human): 70%/2D
		Skin (Rodent - rabbit): 20mg/24H - Moderate
		Skin (Rodent - rabbit): 400mg - Mild
		Skin: no adverse effect observed (not irritating) ^[1]
	ΤΟΧΙCITY	IRRITATION
alphenylloaonium chioride	Oral (Rat) LD50: 60 mg/kg ^[2]	Not Available
	ΤΟΧΙCITY	IRRITATION
diphenyl(2,4,6-	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye: no adverse effect observed (not irritating) ^[1]
	Oral (Rat) LD50: >5000 mg/kg ^[2]	Skin: no adverse effect observed (not irritating) $^{\left[1 \right]}$
Legend:	1. Value obtained from Europe ECHA Registered Sub	stances - Acute toxicity 2. Value obtained from manufacturer's SDS.
	Unless otherwise specified data extracted from RTEC	S - Register of Toxic Effect of chemical Substances

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	~	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	*
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
	Le	gend: 🛛 🗙 – Data either not ava	ailable or does not fill the criteria for classification

Legend: 🗙

Data available to make classification

Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
ONE COAT 7 UNIVERSAL	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>0.68mg/l	2
diurethane dimethacrylate	EC50	48h	Crustacea	>1.2mg/L	2
	LC50	96h	Fish	10.1mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	0.21mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	345mg/l	2
2-hydroxyethyl	EC50	48h	Crustacea	380mg/l	2
methaciyiate	NOEC(ECx)	504h	Crustacea	24.1mg/l	2
	LC50	96h	Fish	>100mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
10-methacryloyloxydecyl dihydrogen phosphate	Not Available	Not Available	Not Available	Not Available	Not Available
ethonol	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	275mg/l	2
	EC50	48h	Crustacea	2mg/L	4
etnanoi	EC50(ECx)	96h	Algae or other aquatic plants	<0.001mg/L	4
	LC50	96h	Fish	42mg/L	4
	EC50	96h	Algae or other aquatic plants	<0.001mg/L	4
	Endpoint	Test Duration (hr)	Species	Value	Source
diphenyliodonium chloride	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	72h	Algae or other aquatic plants	>2.01mg/l	2
diphenyl(2,4,6- trimethylbenzoyl)phosphine	EC50	48h	Crustacea	3.53mg/l	2
	LC50	96h	Fish	10- 100mg/l	Not Available
	NOEC(ECx)	96h	Fish	1mg/l	2
Legend:	Extracted from 4. US EPA, Eco Bioconcentratio	1. IUCLID Toxicity Data 2. Europe otox database - Aquatic Toxicity Di on Data 7. METI (Japan) - Bioconc	e ECHA Registered Substances - Ecotoxicologic ata 5. ECETOC Aquatic Hazard Assessment Da centration Data 8. Vendor Data	al Information - Aqua ata 6. NITE (Japan) -	atic Toxicity

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2-hydroxyethyl methacrylate	LOW	LOW
ethanol	LOW (Half-life = 2.17 days)	LOW (Half-life = 5.08 days)
diphenyliodonium chloride	HIGH	HIGH
diphenyl(2,4,6- trimethylbenzoyl)phosphine	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2-hydroxyethyl methacrylate	LOW (BCF = 1.54)
ethanol	LOW (LogKOW = -0.31)
diphenyliodonium chloride	HIGH (LogKOW = 4.9242)
diphenyl(2,4,6- trimethylbenzoyl)phosphine	MEDIUM (LogKOW = 3.8723)

Mobility in soil

Ingredient	Mobility
2-hydroxyethyl methacrylate	HIGH (Log KOC = 1.043)
ethanol	HIGH (Log KOC = 1)
diphenyliodonium chloride	LOW (Log KOC = 11290)
diphenyl(2,4,6- trimethylbenzoyl)phosphine	LOW (Log KOC = 188300)

SECTION 13 Disposal considerations

Dispose of waste according to app	
Product / Packaging disposal disposal disposal disposal disposal dispose of waste according to app with household waste in compliand authorities in charge. (Only dispose	plicable legislation. Special country-specific regulations may apply. Can be disposed together ce with official regulations in contact with approved waste disposal companies and with se of completely emptied packages.)

SECTION 14 Transport information

Labels Required

Marine Pollutant	

Shipping container, transport vehicle placarding, and labeling may vary from the below information. This depends on the quantity shipped, the applicability of excepted quantity requirements, limited quantity requirements, and/or special provisions according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT)

14.1. UN number or ID number	1170		
14.2. UN proper shipping name	Ethanol or Ethyl alcohol; Ethanol solutions or Ethyl alcohol solutions		
14.3. Transport hazard class(es)	Class Subsidiary Hazard	3 Not Applicable	
14.4. Packing group	III		
14.5. Environmental hazard	Environmentally hazardous		
14.6. Special precautions for user	Hazard Label Special provisions	3 24, B1, IB3, T2, TP1	

Air transport (ICAO-IATA / DGR)

14.1. UN number	1170			
14.2. UN proper shipping name	Ethanol. Solution; Ethanol			
14.3. Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subsidiary Hazard ERG Code	3 Not Applicable 3L		
14.4. Packing group	III			
14.5. Environmental hazard	Environmentally hazardous			
14.6. Special precautions for user	Special provisions A3 A58 A180			

Cargo Only Packing Instructions	366
Cargo Only Maximum Qty / Pack	220 L
Passenger and Cargo Packing Instructions	355
Passenger and Cargo Maximum Qty / Pack	60 L
Passenger and Cargo Limited Quantity Packing Instructions	Y344
Passenger and Cargo Limited Maximum Qty / Pack	10 L

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	1170			
14.2. UN proper shipping name	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION); ETHANOL (ETHYL ALCOHOL)			
14.3. Transport hazard	IMDG Class			
class(es)	IMDG Subsidiary Ha	ard Not A	pplicable	
14.4. Packing group	III			
14.5 Environmental hazard	Marine Pollutant			
14.6. Special precautions for user	EMS Number	F-E , S-D		
	Special provisions	144 223		
	Limited Quantities	5 L		

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
diurethane dimethacrylate	Not Available
2-hydroxyethyl methacrylate	Not Available
10-methacryloyloxydecyl dihydrogen phosphate	Not Available
ethanol	Not Available
diphenyliodonium chloride	Not Available
diphenyl(2,4,6- trimethylbenzoyl)phosphine	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
diurethane dimethacrylate	Not Available
2-hydroxyethyl methacrylate	Not Available
10-methacryloyloxydecyl dihydrogen phosphate	Not Available
ethanol	Not Available
diphenyliodonium chloride	Not Available
diphenyl(2,4,6- trimethylbenzoyl)phosphine	Not Available

SECTION 15 Regulatory information

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

diurethane dimethacrylate is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

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

2-hydroxyethyl methacrylate is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

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

10-methacryloyloxydecyl dihydrogen phosphate is found on the following regulatory lists
Not Applicable
ethanol is found on the following regulatory lists
US - Massachusette - Right To Know Listed Chemicals
US - New Jersey Picht to Know - Special Health Hazard Substance List (SHHSL): Carcinogons
US - New Jersey Right to Know - Special Health Hazard Substance List (SH152). Cardinogens
US - New Jersey Right to Know - Special nearth nazard Substance List (SnnSL): Flammables
US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Mutagens
US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Teratogens
US - New Jersey Right to Know Hazardous Substances
US - Pennsylvania - Hazardous Substance List
US DOE Temporary Emergency Exposure Limits (TEELs)
US New York City Community Right-to-Know: List of Hazardous Substances
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-1 (Spanish)
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
diphenyliodonium chloride is found on the following regulatory lists
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US OSHA Permissible Exposure Limits (PELs) Table Z-1 (Spanish)
US OSHA Permissible Exposure Limits (PELs) Table Z-3
US OSHA Permissible Exposure Limits (PELs) Table Z-3 (Spanish)
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

diphenyl(2,4,6-trimethylbenzoyl)phosphine is found on the following regulatory lists

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

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)	Yes
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	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	Yes
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	No

Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	Νο

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

None Reported

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

None Reported

Additional Federal Regulatory Information

Not Applicable

State Regulations

US. California Proposition 65

None Reported

Additional State Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status		
Australia - AIIC / Australia Non-Industrial Use	No (10-methacryloyloxydecyl dihydrogen phosphate; diphenyliodonium chloride)		
Canada - DSL	No (diurethane dimethacrylate; 10-methacryloyloxydecyl dihydrogen phosphate; diphenyliodonium chloride)		
Canada - NDSL	No (2-hydroxyethyl methacrylate; 10-methacryloyloxydecyl dihydrogen phosphate; ethanol; diphenyl(2,4,6-trimethylbenzoyl)phosphine)		
China - IECSC	No (10-methacryloyloxydecyl dihydrogen phosphate)		
Europe - EINEC / ELINCS / NLP	No (10-methacryloyloxydecyl dihydrogen phosphate)		
Japan - ENCS	No (diurethane dimethacrylate; 10-methacryloyloxydecyl dihydrogen phosphate; diphenyliodonium chloride)		
Korea - KECI	No (10-methacryloyloxydecyl dihydrogen phosphate; diphenyliodonium chloride)		
New Zealand - NZIoC	No (10-methacryloyloxydecyl dihydrogen phosphate)		
Philippines - PICCS	No (diurethane dimethacrylate; 10-methacryloyloxydecyl dihydrogen phosphate; diphenyliodonium chloride)		
USA - TSCA	TSCA Inventory 'Active' substance(s) (diurethane dimethacrylate; 2-hydroxyethyl methacrylate; ethanol; diphenyliodonium chloride; diphenyl(2,4,6-trimethylbenzoyl)phosphine); No (10-methacryloyloxydecyl dihydrogen phosphate)		
Taiwan - TCSI	No (10-methacryloyloxydecyl dihydrogen phosphate)		
Mexico - INSQ	No (diurethane dimethacrylate; 10-methacryloyloxydecyl dihydrogen phosphate; diphenyliodonium chloride)		
Vietnam - NCI	Yes		
Russia - FBEPH	No (diurethane dimethacrylate; 10-methacryloyloxydecyl dihydrogen phosphate)		
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	16/05/2023
Initial Date	07/01/2022

SDS Version Summary

Version	Date of Update	Sections Updated
2.3	16/05/2023	Hazards identification - Classification, Firefighting measures - Fire Fighter (fire/explosion hazard), Firefighting measures - Fire Fighter (fire fighting), Handling and storage - Handling Procedure, Composition / information on ingredients - Ingredients, Accidental release measures - Spills (major), Handling and storage - Storage (storage requirement), Transport 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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.