Polyaspartic 7500 'A' Low Odor

ICP Construction Inc.

Version No: **10.24**
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Issue Date: **08/18/2022**
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S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Polyaspartic 7500 'A' Low Odor
Synonyms	Not Available
Proper shipping name	Combustible liquid, n.o.s. (contains dipropylene glycol monomethyl ether acetate)
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses	High Performance Coating

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

Association / Organisation	**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	Serious Eye Damage/Eye Irritation Category 2A, Flammable Liquids Category 4, Hazardous to the Aquatic Environment Acute Hazard Category 3, Sensitisation (Skin) Category 1A, Hazardous to the Aquatic Environment Long-Term Hazard Category 3

Label elements

Hazard pictogram(s)	
Signal word	**Warning**

Hazard statement(s)

H319	Causes serious eye irritation.
H227	Combustible liquid.

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H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

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.

Precautionary statement(s) Prevention

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P303+P361+P353	IF ON SKIN (or hair):P Remove/Take off immediately all contaminated clothing,. Rinse skin with water/shower.
P363	Wash contaminated clothing before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	IF eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

P403+P235	Store in a well ventilated place. Keep Cool

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Not Applicable

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
136210-32-7	15-40	aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester
623-91-6*	1-5	Aliphatic carboxylic ester
136210-30-5	15-40	aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester
145899-78-1	1-5	3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)
88917-22-0*	10-30	dipropylene glycol monomethyl ether acetate
108-83-8	1-5	diisobutyl ketone

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, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.

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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 and precautions for fire-fighters

Fire Fighting	
Fire/Explosion Hazard	‣ Combustible. ‣ Slight fire hazard when exposed to heat or flame. Combustion products include: carbon dioxide (CO_2) nitrogen oxides (NOx) 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	‣ Clean up all spills immediately. ‣ Avoid breathing vapours and contact with skin and eyes.
Major Spills	

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	‣ **DO NOT** allow clothing wet with material to stay in contact with skin
Other information	Consider storage under inert gas.

Conditions for safe storage, including any incompatibilities

Suitable container	
Storage incompatibility	‣ Segregate from alcohol, water. ‣ 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 OSHA Permissible Exposure Limits (PELs) Table Z-1	diisobutyl ketone	Diisobutyl ketone	50 ppm / 290 mg/m3	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	diisobutyl ketone	Diisobutyl ketone	25 ppm / 150 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

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Ingredient	TEEL-1	TEEL-2	TEEL-3
diisobutyl ketone	75 ppm	330 ppm	2000* ppm

Ingredient	Original IDLH	Revised IDLH
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	Not Available	Not Available
Aliphatic carboxylic ester	Not Available	Not Available
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	Not Available	Not Available
3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)	Not Available	Not Available
dipropylene glycol monomethyl ether acetate	Not Available	Not Available
diisobutyl ketone	500 ppm	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	D	> 0.1 to ≤ 1 ppm
Aliphatic carboxylic ester	E	≤ 0.1 ppm
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	D	> 0.1 to ≤ 1 ppm
3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)	D	> 0.1 to ≤ 1 ppm
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.*	

Exposure controls

Appropriate engineering controls	
Personal protection	
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	

Respiratory protection

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

- 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	Moisture sensitive. Family of products which vary in their physical properties as a result of variations in production. Data presented here is for typical family member.

Physical state	Liquid	**Relative density (Water = 1)**	Not Available
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available

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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)	>74	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Combustible.	**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 (Not Available%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	<15

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	
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 other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence. High molecular weight material; on single acute exposure would be expected to pass through gastrointestinal tract with little change / absorption. Occasionally accumulation of the solid material within the alimentary tract may result in formation of a bezoar (concretion), producing discomfort.
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	This material can cause eye irritation and damage in some persons.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Some glycol esters and their ethers cause wasting of the testicles, reproductive changes, infertility and changes to kidney function. Shorter chain compounds are more dangerous. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

Polyaspartic 7500 'A' Low Odor	**TOXICITY**	**IRRITATION**
	Not Available	Not Available
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[2]	Eye : Mild
	Inhalation(Rat) LC50; >4.224 mg/L4h[1]	Skin : Moderate
	Oral (Rat) LD50; >2000 mg/kg[2]	

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Aliphatic carboxylic ester	

TOXICITY	IRRITATION
Oral (Mouse) LD50; 2227 mg/kg[2]	Not Available
Oral (Rat) LD50; 1780 mg/kg[2]	

aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	

TOXICITY	IRRITATION
dermal (rat) LD50: >2000 mg/kg[1]	Eye : Mild
Inhalation(Rat) LC50; >4.224 mg/L4h[1]	Skin : Moderate
Oral (Rat) LD50; >2000 mg/kg[1]	

3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)	

TOXICITY	IRRITATION
dermal (rat) LD50: >2000 mg/kg[2]	Not Available
Oral (Rat) LD50; >2000 mg/kg[2]	

dipropylene glycol monomethyl ether acetate	

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >5000 mg/kg*[2]	Not Available
Oral (Rat) LD50; >5000 mg/kg*[2]	

diisobutyl ketone	

TOXICITY	IRRITATION
dermal (rat) LD50: >2000 mg/kg[1]	Eye (human): 25 ppm/15min - mild
Inhalation(Guinea) LC50; >14.5 mg/l4h[1]	Eye (rabbit): 500 mg
Oral (Rat) LD50; >2000 mg/kg[1]	Eye: no adverse effect observed (not irritating)[1]
	Skin (g.pig): repeated - SEVERE
	Skin (g.pig): Strong *
	Skin (rabbit): 10 mg/24h - mild
	Skin (rabbit): 500 mg - mild
	Skin: adverse effect observed (irritating)[1]
	Skin: no adverse effect observed (not irritating)[1]

Legend:	*1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

ASPARTIC ACID, N,N'-(METHYLENEDICYCLOHEXANEDIYL)BIS-,ESTER	for similar substance CAS 136210-10-32-7: Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.
Aliphatic carboxylic ester	for diethyl fumarate **Repeat dose toxicity**: In an oral combined repeated dose and reproductive/developmental toxicity test at doses of 0, 11, 30 and 100 mg/kg/day [OECD TG 422], no effects were observed on clinical signs, body weight, food consumption, urinalysis, haematology or blood chemistry examinations. Histopathological examination of the forestomach revealed thickening of the mucosal layer in both sexes of all treated groups, hyperkeratosis in males of all treated groups and in females of the 30 and 100 mg/kg groups.
3-OXAZOLIDINEETHANOL, 2-(1-METHYLETHYL)-, CARBONATE (2:1)	* Industrial Copolymers Limited SDS (incozol LV)
dipropylene glycol monomethyl ether acetate	For propylene glycol ethers (PGEs): Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA) and tripropylene glycol methyl ether (TPM). Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on the reproductive organs, the developing embryo and foetus, blood or thymus gland, are not seen with the commercial-grade propylene glycol ethers.
DIISOBUTYL KETONE	[Eastman; * for mixed isomer, ** for 2,6-dimethyl-4-heptanone] NOEL = 400 ppm (12 exposures rat) * LOEL = 250 ppm (30 exposures, rat) ** NOEL = 125 ppm (' ' ') ** - target organ; kidney LOEL = 2000 mg/kg/day (oral neurotoxicity; minor target organs - liver, kidney, stomach) ** NOEL = 2000 mg/kg (for neurotoxicity) ** Skin sensitisation (g.pig) - moderate * For diisobutyl ketone (DIBK) There is very little data on DIBK exposure available. For the risk characterisation a selection of the data on methyl isobutyl ketone (MIBK) and methyl ethyl ketone, (MEK) was used. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.
Polyaspartic 7500 'A' Low Odor & ASPARTIC ACID, N,N'-(METHYLENEDICYCLOHEXANEDIYL)BIS-,ESTER & 3-OXAZOLIDINEETHANOL, 2-(1-METHYLETHYL)-, CARBONATE (2:1)	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.

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ASPARTIC ACID, N,N'-(METHYLENEDICYCLOHEXANEDIYL)BIS-,ESTER	Evidence of sensitisation (adjuvant test) * After the first challenge very mild to clearly visible skin reddening was observed in 85% of the test substance animals. After the second challenge, very mild to clearly visible skin reddening was observed in 50% and 35% of the test substance animals challenged with 25% and 12% test substance respectively. Rat repeat dose oral toxicity - 29 days NOAEL 1000 mg/kg/day * Genotoxicity ? bacterial reverse mutation non mutagenic * Genotoxicity ? in vitro not determined * Genotoxicity ? in vivo erythrocyte micronucleus test non clastogenic * The notified chemical is considered to be of low acute toxicity via the oral, dermal and inhalation routes. Irritation and Sensitisation. The material is considered to be a slight skin and eye irritant and mild respiratory irritant and a skin sensitiser. As skin reactions were observed in 85% of animals at a concentration of 50%, the substance is considered to be a strong sensitiser. Repeated Dose Toxicity. In a 28 day study in rats, the No Observed Adverse Effect Level (NOAEL) was established as 1000 mg/kg bw/day based on the absence of adverse treatment related effects. Mutagenicity. The material was negative in an Ames test and an in vivo erythrocyte micronucleus test. The substance is not considered to be mutagenic. Neurotoxicity: In the in vivo mouse erythrocyte micronucleus test, following intraperitoneal administration of a fairly high dose (5345 mg/kg bw) some evidence of non-specific neurological impairment was seen. However, this was not observed in any of the tests conducted on any other species and could either be species-specific or an expression of generalised toxicity induced at high doses, as opposed to specific neurotoxicity. * NICNAS Report Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema.
dipropylene glycol monomethyl ether acetate & DIISOBUTYL KETONE	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound.

Acute Toxicity	✗	**Carcinogenicity**	✗
Skin Irritation/Corrosion	✗	**Reproductivity**	✗
Serious Eye Damage/Irritation	✓	**STOT - Single Exposure**	✗
Respiratory or Skin sensitisation	✓	**STOT - Repeated Exposure**	✗
Mutagenicity	✗	**Aspiration Hazard**	✗

Legend: ✗ *– Data either not available or does not fill the criteria for classification*
✓ *– Data available to make classification*

SECTION 12 Ecological information

Toxicity

Polyaspartic 7500 'A' Low Odor

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	34mg/l	2
EC50	48h	Crustacea	88.6mg/l	Not Available
NOEC(ECx)	48h	Crustacea	10mg/l	Not Available
LC50	96h	Fish	66mg/l	2

Aliphatic carboxylic ester

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	0.82h	Algae or other aquatic plants	>=250mg/l	4

aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	34mg/l	2
EC50	48h	Crustacea	88.6mg/l	Not Available
NOEC(ECx)	48h	Crustacea	10mg/l	Not Available
LC50	96h	Fish	66mg/l	2

3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	48h	Crustacea	>100mg/l	Not Available
EC50(ECx)	48h	Crustacea	>100mg/l	Not Available
LC50	96h	Fish	87500mg/L	Not Available

dipropylene glycol monomethyl ether acetate

Endpoint	Test Duration (hr)	Species	Value	Source
NOEC(ECx)	96h	Fish	62.5mg/l	2
EC50	72h	Algae or other aquatic plants	>100mg/l	2
EC50	48h	Crustacea	1090mg/l	2
LC50	96h	Fish	110.55mg/l	2

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	Endpoint	Test Duration (hr)	Species	Value	Source
diisobutyl ketone	EC50	72h	Algae or other aquatic plants	26.3mg/l	2
	EC50	48h	Crustacea	250mg/l	1
	NOEC(ECx)	96h	Algae or other aquatic plants	46mg/l	1
	LC50	96h	Fish	30mg/l	2
	EC50	96h	Algae or other aquatic plants	100mg/l	1

Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
For Propylene Glycol Ethers: log Kow's range from 0.309 for TPM to 1.523 for DPnB. Calculated BCFs range from 1.47 for DPnB to 3.16 for DPMA and TPM, indicating low bioaccumulation.
For high molecular weight synthetic polymers: (according to the Sustainable Futures (SF) program (U.S. EPA 2005b; U.S. EPA 2012c) polymer assessment guidance.)
High MW polymers are expected:
· to have low vapour pressure and are not expected to undergo volatilization .
· to adsorb strongly to soil and sediment
· to be non-biodegradable (not anticipated to be assimilated by microorganisms.- therefore, biodegradation is not expected to be an important removal process. However many exceptions exist
High MW polymers are not expected to undergo removal by other degradative processes under environmental conditions

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Aliphatic carboxylic ester	LOW	LOW
dipropylene glycol monomethyl ether acetate	HIGH	HIGH
diisobutyl ketone	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
Aliphatic carboxylic ester	LOW (LogKOW = 2.1955)
dipropylene glycol monomethyl ether acetate	LOW (LogKOW = 0.6595)
diisobutyl ketone	LOW (LogKOW = 2.5646)

Mobility in soil

Ingredient	Mobility
Aliphatic carboxylic ester	LOW (KOC = 10.9)
dipropylene glycol monomethyl ether acetate	LOW (KOC = 10)
diisobutyl ketone	LOW (KOC = 60.12)

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.

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO

Land transport (DOT)

UN number	NA1993
UN proper shipping name	Combustible liquid, n.o.s. (contains dipropylene glycol monomethyl ether acetate)
Transport hazard class(es)	Class: Comb Subrisk: Not Applicable
Packing group	III

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Environmental hazard	Not Applicable	
Special precautions for user	Hazard Label	Not Applicable
	Special provisions	148, IB3, T1, TP1

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

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

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

Not Applicable

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

Product name	Group
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	Not Available
Aliphatic carboxylic ester	Not Available
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	Not Available
3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)	Not Available
dipropylene glycol monomethyl ether acetate	Not Available
diisobutyl ketone	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	Not Available
Aliphatic carboxylic ester	Not Available
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	Not Available
3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)	Not Available
dipropylene glycol monomethyl ether acetate	Not Available
diisobutyl ketone	Not Available

SECTION 15 Regulatory information

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

aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

Aliphatic carboxylic ester is found on the following regulatory lists

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1) is found on the following regulatory lists

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

dipropylene glycol monomethyl ether acetate is found on the following regulatory lists

US - California Hazardous Air Pollutants Identified as Toxic Air Contaminants
US Clean Air Act - Hazardous Air Pollutants
US EPCRA Section 313 Chemical List
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

diisobutyl ketone is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals
US DOE Temporary Emergency Exposure Limits (TEELs)
US NIOSH Recommended Exposure Limits (RELs)
US OSHA Permissible Exposure Limits (PELs) Table Z-1
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US TSCA Chemical Substance Inventory - Interim List of Active Substances

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

Continued...

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	No
Skin Corrosion or Irritation	No
Respiratory or Skin Sensitization	Yes
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No
Hazards Not Otherwise Classified	No

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

None Reported

State Regulations

US. California Proposition 65

None Reported

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1))
Canada - DSL	No (Aliphatic carboxylic ester; 3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1))
Canada - NDSL	No (aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; dipropylene glycol monomethyl ether acetate; diisobutyl ketone)
China - IECSC	No (3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1))
Europe - EINEC / ELINCS / NLP	No (aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; 3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1); dipropylene glycol monomethyl ether acetate)
Japan - ENCS	No (aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; 3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1); dipropylene glycol monomethyl ether acetate)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	No (aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; 3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1))
USA - TSCA	Yes
Taiwan - TCSI	Yes
Mexico - INSQ	No (aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester; 3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1); dipropylene glycol monomethyl ether acetate)
Vietnam - NCI	Yes
Russia - FBEPH	No (3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1); dipropylene glycol monomethyl ether acetate)
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	08/18/2022
Initial Date	08/14/2019

CONTACT POINT

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

SDS Version Summary

Version	Date of Update	Sections Updated
9.24	08/18/2022	Ingredients, Physical Properties, Transport Information

Other information

Continued...

Ingredients with multiple cas numbers

Name	CAS No
aspartic acid, N,N'-(methylenedicyclohexanediyl)bis-,ester	136210-32-7, 188364-76-3
3-oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1)	145899-78-1, 212059-26-2
diisobutyl ketone	108-83-8, 19549-80-5

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
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

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end of SDS