ICP

Castor Crete 'A' Clear

ICP Construction Inc.

Version No: 11.15

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

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SECTION 1 Identification

Product Identifier

Product name	Castor Crete 'A' Clear
Synonyms	Not Available
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses Special Floor Coating Resin

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

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)



H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fumes/gas/mist/vapors/spray
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
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

P302+P352	IF ON SKIN: Wash with plenty of water
P333+P313	IF Skin irritation or rash occurs: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P391	Collect spillage

Precautionary statement(s) Storage

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
8001-79-4	30-60	castor oil
61791-12-6*	1-5	castor oil, hydrogenated, ethoxylated
64-19-7	1-5	acetic acid glacial
94266-48-5	1-5	pine oil, synthetic

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. For thermal burns: Decontaminate area around burn. Consider the use of cold packs and topical antibiotics. For first-degree burns (affecting top layer of skin) Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. Use compresses if running water is not available.

	Cover with sterile non-adhesive bandage or clean cloth.
	Do NOT apply butter or ointments; this may cause infection.
	Give over-the counter pain relievers if pain increases or swelling, redness, fever occur.
	For second-degree burns (affecting top two layers of skin)
	 Cool the burn by immerse in cold running water for 10-15 minutes.
	Use compresses if running water is not available.
	Do NOT apply ice as this may lower body temperature and cause further damage.
	Do NOT break blisters or apply butter or ointments; this may cause infection.
	Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape.
	To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort):
	Lay the person flat.
	 Elevate feet about 12 inches.
	Elevate burn area above heart level, if possible.
	Cover the person with coat or blanket.
	Seek medical assistance.
	For third-dearee burns
	Seek immediate medical or emergency assistance.
	In the mean time:
	Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in
	wound.
	Separate burned toes and fingers with dry, sterile dressings.
	Do not soak burn in water or apply ointments or butter; this may cause infection.
	To prevent shock see above.
	For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway.
	Have a person with a facial burn sit up.
	Check pulse and breathing to monitor for shock until emergency help arrives.
Inhalation	If fumes, aerosols or combustion products are inhaled remove from contaminated area.
	Other measures are usually unnecessary.
	E. K. and Harris d. de NOT in data a constitution
	It swallowed do NOT induce vomiting.
	• If vomiting occurs, lean patient forward or place on left side (nead-down position, if possible) to maintain open airway and prevent
la secolo se	aspiration.
Ingestion	• Observe the patient carefully.
	 Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
	 Give water to rinse out mouth, then provide liquid slowly and as much as casuality can comfortably drink. Development of the drive
	Seek medical advice.
	1

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.
- BCF (where regulations permit).

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. Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Combustion products include: carbon dioxide (CO2) acrolein nitrogen oxides (NOx) other pyrolysis products typical of burning organic material. May emit corrosive fumes. CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures See section 8

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Environmental hazard - contain spillage. Slippery when spilt. Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes.
Major Spills	Environmental hazard - contain spillage. Slippery when spilt. Moderate hazard.

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. Use in a well-ventilated area. DO NOT allow clothing wet with material to stay in contact with skin
Other information	Consider storage under inert gas. Refrigerated storage normally required. • Store in original containers. • Keep containers securely sealed. • No smoking, naked lights or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable container	 DO NOT use aluminium or galvanised containers Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 d-Limonene: forms unstable peroxides in storage, unless inhibited; may polymerise reacts with strong oxidisers and may explode or combust is incompatible with strong acids, including acidic clays, peroxides, halogens, vinyl chloride and iodine pentafluoride flow or agitation may generate electrostatic charges due to low conductivity Acetic acid: vapours forms explosive mixtures with air (above 39 C.) reacts violently with bases such as carbonates and hydroxides (giving off large quantities of heat), oxidisers, organic amines, acetaldehyde, potassium tert-butoxide reacts (sometimes violently), with strong acids, aliphatic amines, alkanolamines, alkylene oxides, epichlorohydrin, acetic anhydride, 2-aminoethanol, ammonia, ammonium nitrate, bromine pentafluoride, chlorosulfonic acid, chromic acid, chromium trioxide, ethylenediamine, ethyleneimine, hydrogen peroxide, isocyanates, oleum, perchloric acid, permanganates, phosphorus isocyanate, phosphorus trichloride, sodium peroxide, xylene attacks cast iron, stainless steel and other metals, forming flammable hydrogen gas attacks cast iron, stainless steel and other metals, forming flammable hydrogen gas attacks cast iron, stainless steel and other metals, are often volatile and may be easily oxidised or hydrolysed depending on their respective structure. Terpenoids and terpenes, are generally unsaturated, are thermolabile, are often volatile and may be easily oxidised or hydrolysed depending on their respective structure. Terpenoids and terpenes and hydroperoxides. The interaction of alkenes and hydroperoxides. The interaction of alkenes and hydroperoxides and oxygen may produce explosive addition products; these may form at very low temperatures and explode on warming to -35 to -15 C). These derivatives ('pseudo- nitrosites') were formerly used to characterise terpene hydrocarbons. Exposure to air must b

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Limits (PELs) Table Z-1	acetic acid glacial	Acetic acid	10 ppm / 25 mg/m3	Not Available	Not Available	Not Available

Source	Ingredient	Material name	TWA	STEL	Peak	Notes		
US NIOSH Recommended Exposure Limits (RELs)	acetic acid glacial	Acetic acid	10 ppm / 25 mg/m3	37 mg/m3 / 15 ppr	n Not Available	Not Available		
Emergency Limits								
Ingredient	TEEL-1		TEEL-2		TEEL-3			
acetic acid glacial	Not Available		Not Available		Not Available			
Ingredient	Original IDLH			Revised IDLH				
castor oil	Not Available			Not Available				
castor oil, hydrogenated, ethoxylated	Not Available			Not Available				
acetic acid glacial	50 ppm			Not Available				
pine oil, synthetic	Not Available			Not Available				
Occupational Exposure Bandir	ng							
Ingredient	Occupational Expos	sure Band Rating		Occupational Expos	sure Band Limit			
castor oil	E			≤ 0.1 ppm				
pine oil, synthetic	E			≤ 0.1 ppm				
Notes:	Occupational exposu adverse health outco to a range of exposu	re banding is a process mes associated with ex re concentrations that a	s of assigning chemicals in posure. The output of this re expected to protect wor	to specific categories or process is an occupation ker health.	bands based on a chemic nal exposure band (OEB),	al's potency and th which corresponds		
Exposure controls								
Appropriate engineering controls	Engineering controls can be highly effectiv The basic types of er Process controls whic	are used to remove a h e in protecting workers igineering controls are: ch involve changing the	nazard or place a barrier be and will typically be indep way a job activity or proce	etween the worker and the endent of worker interact cess is done to reduce the	e hazard. Well-designed ions to provide this high le risk.	engineering control evel of protection.		
Individual protection measures, such as personal protective equipment								
Eye and face protection	 Safety glasses w Chemical goggle Contact lenses m 	ith side shields. s. [AS/NZS 1337.1, EN nay pose a special haza	166 or national equivalent ard; soft contact lenses ma	 y absorb and concentrat	e irritants.			
Skin protection	See Hand protection	below						
Hands/feet protection	 Wear chemical p Wear safety foots NOTE: The material may equipment, to av Contaminated leas The selection of suita manufacturer. Where advance and has the 	rotective gloves, e.g. P wear or safety gumboot v produce skin sensitisa oid all possible skin cor ather items, such as shu ble gloves does not on the chemical is a preparefore to be checked pr	VC. s, e.g. Rubber ation in predisposed individ ntact. oes, belts and watch-band ly depend on the material, aration of several substand ior to the application.	uals. Care must be taken s should be removed an but also on further mark ces, the resistance of the	n, when removing gloves a d destroyed. s of quality which vary froi glove material can not be	and other protective n manufacturer to e calculated in		

The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.

Other protection P.V.C apron. Barrier cream.

Body protection

Respiratory protection

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

See Other protection below

Overalls.

- 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	Air sensitive
	Heat sensitive.
	Glycerides, more correctly known as acylglycerols, are esters formed from glycerol and fatty acids.
	Glycerol has three hydroxyl functional groups, which can be esterified with one, two, or three fatty acids to form monoglycerides (MAGs),
	diglycerides (DAGs), and triglycerides (TAGs).

	Vegetable oils and animal fats contain mostly triglycer and free fatty acids and glycerol. Partial glycerides are esters of glycerol with fatty acids are free their molecules are polar. Partial glycerides m free). Triglycerides are hydrophobic materials that range fro highest molecular weights/longest chain-lengths. Som methods (i.e., reaction of carboxylic acids with a glyce base catalysis, or by the use of an acid chloride. How transesterification (i.e., exchange of acid moieties to c	ides, but are broken down by natura s, where not all the hydroxyl groups a nay be monoglycerides (two hydroxyl m oils, at the lowest molecular weigh the triglycerides are produced synthet erin to produce carboxylic esters), alt ever, some of these ingredients may reate a different ester product).	I enzymes (lipases) into mono and diglycerides are esterified. Since some of their hydroxyl groups groups free) or diglycerides (one hydroxyl group ats/shortest chain-lengths, to waxy solids, at the ically via classical Fischer type esterification hough the reaction may be promoted by acid or be natural sourced and produced by
Physical state	Liquid	Relative density (Water = 1)	8.20
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)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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	<5

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

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation hazard is increased at higher temperatures. Fine mists generated from plant/ vegetable (or more rarely from animal) oils may be hazardous. Extreme heating for prolonged periods, at high temperatures, may generate breakdown products which include acrolein and acrolein-like substances. Minor acetic acid exposure may cause temporary loss of voice while severe acute vapour exposure may cause fluid accumulation in the lungs. Exposure at 800-1200 ppm cannot be tolerated longer than 3 minutes.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Fatty acid esters have fairly low toxicity. Castor oil is considered minimally toxic when administered orally to humans; the estimated lethal oral dose is 1-2 pints of undiluted oil (Gosselin et al., 1976). As a purgative, castor oil is ingested as a bolus. Since this would lead to higher concentrations of ricinoleic acid in the gastrointestinal tract than would occur with dietary exposure, it is not surprising that in an occupational setting there is no indications of loose or wet faeces. Constant use of purgatives/laxatives may decrease the sensitivity of the intestinal mucosa causing a diminished response to normal stimuli. The redevelopment of a normal habit is thus prevented. Ingestion of acetic acid may cause delayed stomach, intestinal and oesophageal perforation, and death in severe cases.
	Continued

	Ricinoleic acid, the major fatty acid present in castor oil, has a variety absorption, stimulation of water secretion into the gut, and reduced c laxative action of orally ingested castor oil.	of effects on the d ontraction of the sn	igestive tract, including inhibition of water and salt nall bowel. Ricinoleic acid is responsible for the		
Skin Contact	The material is not thought to produce adverse health effects or skin models). Nevertheless, good hygiene practice requires that exposure occupational setting. Daily application of 0.5 ml of castor oil to the skin of adult female albi edema, acanthosis and disorganization of the basal layer, and slight Open cuts, abraded or irritated skin should not be exposed to this ma Entry into the blood-stream, through, for example, cuts, abrasions or skin prior to the use of the material and ensure that any external dam Action of acetic acid on the skin may be delayed and insidious.	irritation following of b be kept to a minim no rabbits produced inflammation of the aterial lesions, may produ tage is suitably prof	contact (as classified by EC Directives using animal num and that suitable gloves be used in an d mild irritant reactions, including slight erythema and dermis (Rantuccio et al., 1981) ice systemic injury with harmful effects. Examine the tected.		
Eye	Although the liquid is not thought to be an irritant (as classified by EC discomfort characterised by tearing or conjunctival redness (as with v Acetic acid produces eye irritation at concentrations below 10 ppm.	Directives), direct windburn).	contact with the eye may produce transient		
Chronic	Repeated or long-term occupational exposure is likely to produce cur Skin contact with the material is more likely to cause a sensitisation r Glyceryl triesters (triglycerides) undergo metabolism to become free when given by mouth unless the material takes up a large proportion Extended use of purgatives and laxatives can cause a profuse, water weight loss. Absorption from the bowel may become impaired and de There has been some concern that this material can cause cancer of A number of common flavor and fragrance chemicals can form perox oxidation. Fragrance terpenes are easily oxidized in air. d-Limonene may cause damage to and growths in the kidney. These Repeated minor exposure to acetic acid by mouth can cause blacker nausea. Repeated minor vapour exposure may cause chronic inflam with one report indicating only slight irritation to the airways, stomach bronchi, pharynx and erosion of teeth.	mulative health effe eaction in some pe fatty acids and glyc of energy intake. ry diarrhoea with se image to the heart a r mutations but ther ides surprisingly fa: growths can progra- ing of the skin and mation of the airwa a and skin, while an	cts involving organs or biochemical systems. rsons compared to the general population. erol. Animal studies show that there is no toxicity evere dehydration, mineral losses, weakness and and kidneys can also occur. e is not enough data to make an assessment. st in air. Antioxidants can in most cases minimize the ess to cancer. teeth, erosion of the teeth, vomiting, diarrhea and ys and bronchitis. Results from testing are mixed, other reported inflammation of the conjunctiva,		
	ΤΟΧΙΟΙΤΥ	IRRITATION			
Castor Crete 'A' Clear	Not Available	Not Available			
	ΤΟΧΙCITY	IRRITATION			
castor oil	Oral (Rat) LD50: >4800 mg/kg ^[1]	Eye (rabbit): 500 mg mild			
		Skin (human): 50 n			
		Skin (rabbil): 100 h	ng/24n Severe		
	τοχιαιτχ	IRRITATIO	N		
and a still be descended	Intravenous (dog) LD50: 640 mg/kg ^[2]	Skin (hum	nan): non irritant * [BASF]		
castor oil, hydrogenated, ethoxylated	Intravenous (Mouse) LD50: 6500 ma/ka ^[2]				
	Oral (Rat) LD50: >20000 mg/kg* ^[2]				
	ТОХІСІТҮ	IRRITATION			
	Dermal (rabbit) LD50: 1060 mg/kg ^[2]	Eye (rabbit):	0.05mg (open)-SEVERE		
acetic acid glacial	Inhalation(Mouse) LC50; 1.405 mg/L4h ^[2]	Skin (human):50mg/24hr - mild		
	Oral (Rat) LD50: 3310 mg/kg ^[2]	Skin (rabbit):525mg (open)-SEVERE			
	ΤΟΧΙΟΙΤΥ		IRRITATION		
pine oil, synthetic	dermal (rat) LD50: >2000 mg/kg ^[2]		Eye (rabbit): Severe *		
	Inhalation (Rat) LC50: >4.76 mg/L4h ^[2]		Skin (rabbit) : Severe*		
	Oral (Rat) LD50: >2000 mg/kg ^{L2}				
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute specified data extracted from RTECS - Register of Toxic Effect of che	e toxicity 2. Value o emical Substances	btained from manufacturer's SDS. Unless otherwise		
		414			
Castor Crete 'A' Clear	Fragrance allergens act as haptens, low molecular weight chemicals protein. However, not all sensitizing fragrance chemicals are directly itself causes little or no sensitization, but is transformed into a hapter	that cause an imm reactive, but require n in the skin (bioacti	une response only when attached to a carrier e previous activation. A prehapten is a chemical that vation), usually via enzyme catalysis. 551glyceride		
castor oil, hydrogenated, ethoxylated	This product contains partially hydrogenated fatty acids and/ or trans The consumption of trans fats increases the risk of coronary heart dis HDL cholesterol. There is an ongoing debate about a possible differe origin but so far no scientific consensus has been found. Two Canad beef and dairy products, may have an opposite health effect and cou shortening, or a mixture of pork lard and soy fat, by lowering total and	fatty acids. sease by raising leventiation between tra- ian studies have she Id actually be bene d LDL cholesterol a	rels of LDL cholesterol and lowering levels of 'good' ans fats of natural origin and trans fats of man-made own that the natural trans fat vaccenic acid, found in ficial compared to hydrogenated vegetable nd triglyceride levels.		

	Polyethers (such as ethoxylated surfactants and poly complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidi oxidization products also cause irritation.	yethylene glycols) are highly suscep ised surfactant is non-sensitizing, ma	tible to being oxidized in the air. They then form any of the oxidation products are sensitisers. The
ACETIC ACID GLACIAL	Asthma-like symptoms may continue for months or e condition known as reactive airways dysfunction sym compound. Main criteria for diagnosing RADS includ of persistent asthma-like symptoms within minutes to For acid mists, aerosols, vapours Test results suggest that eukaryotic cells are suscep have not been examined in this respect. Mucous sec (which also protects the stomach lining from the hyd The material may produce severe irritation to the eye produce conjunctivitis. The material may cause severe skin irritation after pi production of vesicles, scaling and thickening of the Prolonged or repeated exposure to acetic acid may I prolonged inhalation exposure results in muscle imb growth but no reproductive or foetal toxicity, accordir	even years after exposure to the mat adrome (RADS) which can occur after the absence of previous airways of the obsence of previous airways of the obsence of previous airways of the obsence of a documented exposure to trible to genetic damage when the pl cretion may protect the cells of the air rochloric acid secreted there). The causing pronounced inflammation. Trolonged or repeated exposure and the skin. Repeated exposures may prode produce irritation and/ or corrosion a valance, increase in blood cholineste to to animal testing.	erial ends. This may be due to a non-allergic or exposure to high levels of highly irritating lisease in a non-atopic individual, with sudden onset o the irritant. If falls to about 6.5. Cells from the respiratory tract irway from direct exposure to inhaled acidic mists Repeated or prolonged exposure to irritants may may produce on contact skin redness, swelling, the luce severe ulceration. It the site of contact as well as systemic toxicity. rase activity, decrease in albumin and decreased
PINE OIL, SYNTHETIC	Ames tests (with and without metabolic activation). O Negative * Chemox Pound Pine Oil 85% terpene alc Epoxidation of double bonds is a common bioactivat Research has shown that conjugated dienes in or in isolated double bonds or an acrylic conjugated diene Fragrance allergens act as haptens, which are small However, not all sensitizing fragrance chemicals are itself causes little or no sensitization, but it is transfor with light) without the requirement of an enzyme. For prehaptens, it is possible to prevent activation on exposure during handling and storage of the ingredie	DECD guideline 471.Negative: Chror sohols Standard (synthetic) tion pathway for alkenes. The allylic conjunction with a six-membered rir a were weak or non-sensitising. I molecules that cause an immune re directly reactive, but some require p rmed into a hapten outside the skin I utside the body to a certain extent by ents and the final product, and by the	mosome aberration test. OECD guideline 473. epoxides formed were found to be sensitizing. ng are prohaptens, while related dienes containing eaction only when attached to a carrier protein. previous activation. A prehapten is a chemical that by a chemical reaction (oxidation in air or reaction of different measures, for example, prevention of air e addition of suitable antioxidants.
Castor Crete 'A' Clear & PINE OIL, SYNTHETIC	The following information refers to contact allergens. Contact allergies quickly manifest themselves as con contact eczema involves a cell-mediated (T lymphod Adverse reactions to fragrances in perfumes and fra sensitivity to light, immediate contact reactions, and allergy is a lifelong condition, so symptoms may occu d-Limonene is readily absorbed by inhalation and sw rapidly distributed to different tissues in the body, rea Limonene shows low acute toxicity by all three route	as a group and may not be specific ntact eczema, more rarely as urticari cytes) immune reaction of the delaye granced cosmetic products include a pigmented contact dermatitis. Airbor ur on re-exposure. vallowing. Absorption through the ski adily metabolized and eliminated, pri is in animals.	to this product. a or Quincke's oedema. The pathogenesis of d type. allergic contact dermatitis, irritant contact dermatitis, ne and connubial contact dermatitis occurs. Contact n is reported to the lower than by inhalation. It is mary through the urine.
Castor Crete 'A' Clear & CASTOR OIL	Some tumorigenic effects have been reported in anii The castor seed contains ricin, a toxic protein. Heatin harvesting castor beans may not be without risk. For aliphatic fatty acids (and salts) Acute oral (gavage) toxicity: The acute oral LD50 values in rats for both were gre following administration of high doses (salivation, dia weight in any study In some studies, excess test sub Skin and eye irritation potential, with a few stated ex According to several OECD test regimes the animal corrosive, while the C12 aliphatic acid is irritating, ar Human skin irritation studies using more realistic exp good or very good skin compatibility. Animal eye irritation studies undicate that among the aliphatic acids are not irritating. Eye irritation potential of the ammonium salts does n Dermal absorption: The in vitro penetration of C10, C12, C14, C16 and 0 chain length. For triglycerides: Carboxylic acid esters will undergo enzymatic hydrol structure of the ester, and may therefore be rapid or physico-chemical characteristics of the intact parent When considering the hydrolysis product glycerol, al The Cosmetic Ingredient Review (CIR) Expert Panel glycerin High purity is needed for the triglycerides. For group E aliphatic esters (polyol esters): The polyol esters, including timethylolpropane (TMF characteristics since they lack beta-tertiary hydroger	mal studies using castor oil ng during the oil extraction process of arthoea, staining, piloerection and lei stance and/or irritation in the gastro ceptions, is chain length dependent skin irritation studies indicate that th nd the C14-22 aliphatic acids genera bosures (30-minute, 1-hour or 24-hou aliphatic acids, the C8-12 aliphatic a not follow chain length dependence; C18 fatty acids (as sodium salt soluti lysis by ubiquitously expressed GI er rather slow. Thus, due to hydrolysis, substance alone may no longer app boorption is favoured based on pass I has issued three final reports on the na toms, thus leading to stability aga I lubricants.	denatures and inactivates the protein. However, igns were generally associated with poor condition thargy).There were no adverse effects on body intestinal tract was observed at necropsy. and decreases with increasing chain length e C6-10 aliphatic acids are severely irritating or lly are not irritating or mildly irritating. Irrs) indicate that the aliphatic acids have sufficient, acids are irritating to the eye while the C14-22 the C18 ammonium salts are corrosive to the eyes. ions) through rat skin decreases with increasing sterases. The rate of hydrolysis is dependant on the predictions on oral absorption based on the ly. ive and active absorption of glycerol. a safety of 25 triglycerides, i.e., fatty acid triesters of rythritol (diPE) are unique in their chemical inst oxidation and elimination. Therefore their esters
CASTOR OIL & PINE OIL, SYNTHETIC	No significant acute toxicological data identified in lit	erature search.	
Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	*	STOT - Single Exposure	*
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	X	Aspiration Hazard	X

Legend: 💙

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

SECTION 12 Ecological information

Conton Creto IAI Clean	Endpoint		Test Duration (hr)	Sp	pecies	Value		Source	
Castor Crete A Clear	Not Available	Not Available		No	Not Available Not Available		le	e Not Available	
	Endpoint	Те	st Duration (hr)	Specie	s		Va	alue	Source
	NOEC(ECx)	24	h	Crustad	Crustacea		1(00mg/l	2
castor oil	EC50	72	h	Algae c	Algae or other aquatic plants		>	100mg/l	2
	EC50	48	h	Crustad	ea		1()0mg/l	2
	Endpoint	Tes	st Duration (hr)	Species			Valu	Ie	Source
castor oil, hydrogenated, ethoxylated	LC50	961	1	Fish			>7.3	3mg/l	2
	NOEC(ECx)	504	4h	Crustace	Crustacea			01mg/l	2
	EC50	72h		Algae or	Algae or other aquatic plants		6.61	mg/l	2
	EC50	48h		Crustace	Crustacea		>25	mg/l	2
	Endpoint	Test	Duration (hr)	Species			Value		Source
	LC50	96h		Fish			31.3-67	'.6mg/l	2
	LC50 EC50(ECx)	96h 24h		Fish Algae or ot	her aquatic plants		31.3-67 0.08mg	′.6mg/l /l	2
acetic acid glacial	LC50 EC50(ECx) EC50	96h 24h 72h		Fish Algae or ot Algae or ot	her aquatic plants her aquatic plants		31.3-67 0.08mg 29.23m	'.6mg/l /l g/l	2 2 2
acetic acid glacial	LC50 EC50(ECx) EC50 EC50	96h 24h 72h 96h		Fish Algae or ot Algae or ot Algae or ot	her aquatic plants her aquatic plants her aquatic plants		31.3-67 0.08mg 29.23m 73.4mg	'.6mg/l /l g/l /L	2 2 2 2 4
acetic acid glacial	LC50 EC50(ECx) EC50 EC50 EC50	96h 24h 72h 96h 48h		Fish Algae or ot Algae or ot Algae or ot Crustacea	her aquatic plants her aquatic plants her aquatic plants		31.3-67 0.08mg 29.23m 73.4mg 18.9mg	'.6mg/l /l g/l /L /l	2 2 2 4 2
acetic acid glacial	LC50 EC50(ECx) EC50 EC50 EC50 EC50	96h 24h 72h 96h 48h	Test Duration (hr)	Fish Algae or ot Algae or ot Algae or ot Crustacea	her aquatic plants her aquatic plants her aquatic plants Species	Value	31.3-67 0.08mg 29.23m 73.4mg 18.9mg	7.6mg/l /l g/l /L /l Source	2 2 2 4 2
acetic acid glacial	LC50 EC50(ECx) EC50 EC50 EC50 EC50	96h 24h 72h 96h 48h	Test Duration (hr) 48h	Fish Algae or ot Algae or ot Algae or ot Crustacea	her aquatic plants her aquatic plants her aquatic plants Species Crustacea	Value 12mg/l	31.3-67 0.08mg 29.23m 73.4mg 18.9mg	'.6mg/l /l g/l /L /l Source Not Available	2 2 2 4 2
acetic acid glacial	LC50 EC50(ECx) EC50 EC50 EC50 EC50 EC50(ECx) EC50	96h 24h 72h 96h 48h	Test Duration (hr) 48h 48h	Fish Algae or ot Algae or ot Algae or ot Crustacea	her aquatic plants her aquatic plants her aquatic plants Species Crustacea Crustacea	Value 12mg/l 12mg/l	31.3-67 0.08mg 29.23m 73.4mg 18.9mg	C.6mg/l /l g/l /L /l Source Not Available Not Available	2 2 2 2 4 2 2 4 2 2 4 2 2

On the basis of available evidence concerning either toxicity, persistence, potential to accumulate and or observed environmental fate and behaviour, the material may present a danger, immediate or long-term and /or delayed, to the structure and/ or functioning of natural ecosystems. Harmful to aquatic organisms.

For aliphatic fatty acids and alcohols:

Environmental fate:

Saturated fatty acids are very stable in air, whereas unsaturated (C=C bonds) fatty acids are susceptible to oxidation.

Unsaturation increases the rate of metabolism although the degree of unsaturation and positioning of double bonds is not highly significant.

The available data indicate all fatty acid salt chain lengths up to and including C18 can be metabolised under aerobic conditions and can be considered to be readily

biodegradable

All tests showed that fatty acids and lipids are readily biodegradable

The aliphatic acids are of similar very weak acid strength (approximately pKa 5), i.e., partially dissociate in aqueous solution; the salts of the aliphatic acids are highly dissociated in water solution such that the anion is the same for homologous salts and acids.

For Group A aliphatic esters (fatty acid esters):

Environmental Fate: Due to their chemical composition, Group A substances are lipophilic and have a relatively high boiling point. They are non-volatile substances with low vapor pressures. Hydrolysis rates are also low and not considered a significant environmental fate.

For Terpenes such as Limonene and Isoprene:

Atmospheric Fate: Contribute to aerosol and photochemical smog formation. When terpenes are introduced to the atmosphere, may either decrease ozone concentrations when oxides of nitrogen are low or, if emissions take place in polluted air (i.e. containing high concentrations of nitrogen oxides), leads to an increase in ozone concentrations. Lower terpenoids can react with unstable reactive gases and may act as precursors of photochemical smog therefore indirectly influencing community and ecosystem properties. Substances containing unsaturated carbons are ubiquitous in indoor environments. They result from many sources (see below). Most are reactive with environmental ozone and many produce stable products which are thought to adversely affect human health. The potential for surfaces in an enclosed space to facilitate reactions should be considered. For Limonenes:

Atmospheric Fate: Due to the high volatility of limonene, the atmosphere is expected to be the major environmental sink for this chemical. The oxidation of limonene may contribute to aerosol and photochemical smog formation. The daytime atmospheric lifetime of d-limonene is estimated to range from 12 to 48 minutes depending upon local hydroxyl rate and ozone concentrations.

For Acetic Acetic Acetic acid and its salts (the acetates) can be grouped together because of their close structural relationships, their natural occurrence in plants and animals, and their fundamental role in cell metabolism.

Atmospheric Fate: Acetic acid is degraded photochemically in the atmosphere to produce hydroxyl radicals (estimated typical half-life of 22 days). Physical removal of acetates on atmospheric particulates may occur via wet or dry deposition.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
acetic acid glacial	LOW	LOW

Bioaccumulation	
LOW (LogKOW = -0.17)	
Mobility	
HIGH (Log KOC = 1)	

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. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. 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. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site.

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
castor oil	Not Available
castor oil, hydrogenated, ethoxylated	Not Available
acetic acid glacial	Not Available
pine oil, synthetic	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
castor oil	Not Available
castor oil, hydrogenated, ethoxylated	Not Available
acetic acid glacial	Not Available
pine oil, synthetic	Not Available

SECTION 15 Regulatory information

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

castor oil is found on the following regulatory lists

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

castor oil, hydrogenated, ethoxylated is found on the following regulatory lists

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

acetic acid glacial is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US CWA (Clean Water Act) - List of Hazardous Substances

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

pine oil, synthetic 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)	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	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
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)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
acetic acid glacial	5000	2270

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	Yes
Canada - DSL	Yes
Canada - NDSL	No (castor oil; castor oil, hydrogenated, ethoxylated; acetic acid glacial; pine oil, synthetic)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (castor oil, hydrogenated, ethoxylated)
Korea - KECI	Yes
New Zealand - NZIoC	Yes

National Inventory	Status
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	04/30/2024
Initial Date	08/08/2021

CONTACT POINT

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

SDS Version Summary

Version	Date of Update	Sections Updated
10.15	04/30/2024	Toxicological information - Acute Health (eye), Toxicological information - Acute Health (inhaled), Toxicological information - Acute Health (skin), Toxicological information - Acute Health (skin), Toxicological information - Acute Health (swallowed), Toxicological information - Chronic Health, Hazards identification - Classification, Exposure controls / personal protection - Engineering Control, First Aid measures - First Aid (eye), First Aid measures - First Aid (eye), First Aid measures - First Aid (inhaled), First Aid (inhaled), First Aid measures - First Aid (swallowed), Composition / information on ingredients - Ingredients, Exposure controls / personal protection - Personal Protection (eye), Exposure controls / personal protection - Personal Protection (hands/feet), Handling and storage - Storage (storage incompatibility), Name

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.

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end of SDS

Castor Crete "A" Clear