

# Vapor Solve Low Perm "A" Delta Fog ICP Construction Inc.

Version No: 3.3

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

Issue Date: **03/20/2023** Print Date: **03/20/2023** S.GHS.USA.EN

# **SECTION 1 Identification**

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Product name	Product name Vapor Solve Low Perm "A" Delta Fog		
Synonyms	Synonyms Not Available		
Proper shipping name Environmentally hazardous substance, liquid, n.o.s. (contains bisphenol A diglycidyl ether polymer)			
Other means of identification Not Available			

#### Recommended use of the chemical and restrictions on use

Relevant identified uses Specialty Flooring Resin

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

Registered company name	ICP Construction Inc.		
Address	Address 150 Dascomb Road Andover, MA 01810 United States		
<b>Telephone</b> 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)

Classification

Serious Eye Damage/Eye Irritation Category 2A, Hazardous to the Aquatic Environment Long-Term Hazard Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Skin Corrosion/Irritation Category 2, Reproductive Toxicity Category 1B, Sensitisation (Skin) Category 1, Germ Cell Mutagenicity Category 2

# Label elements

Hazard pictogram(s)







Signal word

Danger

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H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H373	May cause damage to organs through prolonged or repeated exposure.
H315	Causes skin irritation.
H360	May damage fertility or the unborn child.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.

## Hazard(s) not otherwise classified

Not Applicable

# Precautionary statement(s) General

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

# Precautionary statement(s) Prevention

Obtain special instructions before use.			
P280 Wear protective gloves, protective clothing, eye protection and face protection.			
Do not breath mist/vapours/spray.			
Avoid release to the environment.			
Do not handle until all safety precautions have been read and understood.			
Wash all exposed external body areas thoroughly after handling.			
Contaminated work clothing must not be allowed out of the workplace.			

# Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.		
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
P314	P314 Get medical advice/attention if you feel unwell.		
P333+P313	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.		
P337+P313	P337+P313 If eye irritation persists: Get medical advice/attention.		
P391	P391 Collect spillage.		
P302+P352 IF ON SKIN: Wash with plenty of water and soap.			
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

	•		_
		P405	Store locked up.

# 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
25085-99-8	30-60	bisphenol A diglycidyl ether polymer
9003-36-5	15-40	phenol/ formaldehyde glycidyl ether copolymer
2210-79-9	5-10	o-cresyl glycidyl ether
100-51-6	1-5	benzyl alcohol
2530-83-8	1-5	gamma-glycidoxypropyltrimethoxysilane
13463-67-7*	5-10	Titanium Dioxide Ti02

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.

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	<ul> <li>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.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
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	<ul> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul> <li>IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.</li> <li>For advice, contact a Poisons Information Centre or a doctor.</li> <li>Urgent hospital treatment is likely to be needed.</li> <li>In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.</li> <li>If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist.</li> <li>If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.</li> <li>Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:         <ul> <li>INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> </ul> </li> <li>NOTE: Wear a protective glove when inducing vomiting by mechanical means.</li> </ul>

## Most important symptoms and effects, both acute and delayed

See Section 11

## Indication of any immediate medical attention and special treatment needed

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

#### BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- ▶ Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

# ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- Positive-pressure ventilation using a bag-valve mask might be of use
- ▶ Monitor and treat, where necessary, for arrhythmias.
- Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- Drug therapy should be considered for pulmonary oedema
- Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

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

#### Alert Fire Brigade and tell them location and nature of hazard. Fire Fighting Wear full body protective clothing with breathing apparatus. Combustible. Slight fire hazard when exposed to heat or flame. Fire/Explosion Hazard Combustion products include: carbon dioxide (CO2) aldehydes

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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

Methods and material for cont	annient and oleaning up
Minor Spills	<ul> <li>In the event of a spill of a reactive diluent, the focus is on containing the spill to prevent contamination of soil and surface or ground water.</li> <li>If irritating vapors are present, an approved air-purifying respirator with organic vapor canister is recommended for cleaning up spills and leaks.</li> <li>Environmental hazard - contain spillage.</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> </ul>
Major Spills	Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Environmental hazard - contain spillage. Industrial spills or releases of reactive diluents are infrequent and generally contained. If a large spill does occur, the material should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements.

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

# **SECTION 7 Handling and storage**

# Precautions for safe handling

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

# Conditions for safe storage, including any incompatibilities

	<u> </u>
Suitable container	Metal can or drum     Packaging as recommended by manufacturer.     Check all containers are clearly labelled and free from leaks.
Storage incompatibility	<ul> <li>Contact with water liberates highly flammable gases</li> <li>Epoxides:         <ul> <li>are highly reactive with acids, bases, and oxidising and reducing agents.</li> <li>react, possibly violently, with anhydrous metal chlorides, ammonia, amines and group 1 metals.</li> <li>Phenols are incompatible with strong reducing substances such as hydrides, nitrides, alkali metals, and sulfides.</li> <li>Avoid use of aluminium, copper and brass alloys in storage and process equipment.</li> </ul> </li> <li>Glycidyl ethers:         <ul> <li>may form unstable peroxides on storage in air ,light, sunlight, UV light or other ionising radiation, trace metals - inhibitor should be maintained at adequate levels</li> <li>may polymerise in contact with heat, organic and inorganic free radical producing initiators</li> <li>may polymerise with evolution of heat in contact with oxidisers, strong acids, bases and amines</li> <li>react violently with strong oxidisers, permanganates, peroxides, acyl halides, alkalis, ammonium persulfate, bromine dioxide</li> <li>attack some forms of plastics, coatings, and rubber</li> <li>Reactive diluents are stable under recommended storage conditions, but can decompose at elevated temperatures. In some cases, decomposition can cause pressure build-up in closed systems.</li> <li>Avoid cross contamination between the two liquid parts of product (kit).</li> <li>If two part products are mixed or allowed to mix in proportions other than manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur.</li> <li>Avoid reaction with amines, mercaptans, strong acids and oxidising agents</li> </ul> </li> </ul>

# 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	Titanium Dioxide Ti02	Titanium dioxide - Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Titanium Dioxide Ti02	Inert or Nuisance Dust: Total Dust	15 mg/m3 / 50 mppcf	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	Titanium Dioxide Ti02	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available

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Source	Ingredient	Material name		TWA		STEL	Peak	Notes	
US NIOSH Recommended Exposure Limits (RELs)	Titanium Dioxide Ti02	Titanium dioxide	nium dioxide Not Available		Not Available	Not Available	Ca; See Appendix A		
Emergency Limits									
Ingredient	TEEL-1		TEEL-2			TEEL-3	TEEL-3		
benzyl alcohol	30 ppm		52 ppm			740 ppm	740 ppm		
gamma- glycidoxypropyltrimethoxysilane	9.3 mg/m3		100 mg/m3			230 mg/m	13		
Titanium Dioxide Ti02	30 mg/m3		330 mg/m3			2,000 mg	/m3		
Ingredient	Original IDLH			Re	ised IDLH				
bisphenol A diglycidyl ether polymer	Not Available			Not	Available				
phenol/ formaldehyde glycidyl ether copolymer	Not Available			Not	Available				
o-cresyl glycidyl ether	Not Available			Not	Available				
benzyl alcohol	Not Available			Not	Available				
gamma- glycidoxypropyltrimethoxysilane	Not Available			Not	Available				
Titanium Dioxide Ti02	5,000 mg/m3			Not	Available				
Occupational Exposure Banding									
Ingredient	Occupational Expos	sure Band Rating		0	ccupational	Exposure Ba	nd Limit		
bisphenol A diglycidyl ether polymer	E			≤	0.1 ppm				
phenol/ formaldehyde glycidyl ether copolymer	E ≤0.1			0.1 ppm					
o-cresyl glycidyl ether	Е			≤	0.1 ppm				
benzyl alcohol	Е			≤	0.1 ppm				
gamma- glycidoxypropyltrimethoxysilane	E ≤ 0.1 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		are used to remove a h protecting workers and					•		
Individual protection measures, such as personal protective equipment									
Eye and face protection	<ul> <li>Safety glasses with side shields.</li> <li>Chemical goggles.</li> </ul>								
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.  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.  When handling liquid-grade epoxy resins wear chemically protective gloves, boots and aprons.  The performance, based on breakthrough times, of:  Ethyl Vinyl Alcohol (EVAL laminate) is generally excellent  Butyl Rubber ranges from excellent to good  Nitrile Butyl Rubber (NBR) from excellent to fair.								
Body protection	See Other protection below								
Other protection	<ul> <li>Employees working with confirmed human carcinogens should be provided with, and be required to wear, clean, full body protective clothing (smocks, coveralls, or long-sleeved shirt and pants), shoe covers and gloves prior to entering the regulated area. [AS/NZS ISO 6529:2006 or national equivalent]</li> <li>Employees engaged in handling operations involving carcinogens should be provided with, and required to wear and use half-face filter-type respirators with filters for dusts, mists and fumes, or air purifying canisters or cartridges.</li> <li>Prior to each exit from an area containing confirmed human carcinogens, employees should be required to remove and leave protective clothing and equipment at the point of exit and at the last exit of the day, to place used clothing and equipment in impervious containers at the point of exit for purposes of decontamination or disposal. The contents of such impervious containers must be identified with suitable labels.</li> <li>Protective overalls, closely fitted at neck and wrist.</li> <li>Eye-wash unit.</li> </ul>								

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### Respiratory protection

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

- Latridge 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
- 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

Bisphenol A epoxy resin.

# **Appearance**

Epoxy resins are thermosetting polymers, which are crosslinked using hardeners (curing agents).

Epoxy is either any of the basic components or the cured end products of epoxy resins, as well as a colloquial name for the epoxide functional group. Epoxy resins, also known as polyepoxides, are a class of reactive prepolymers and polymers which contain at least two epoxide groups. Reactive diluents are generally colourless to yellow/ amber, low viscosity liquids with mild ether-like odour; solubility in water varies across the family. Substitution on the phenolic rings may generate solids.

Important epoxy resins are produced from combining epichlorohydrin and bisphenol A to give bisphenol A diglycidyl ethers. Increasing the ratio of bisphenol A to epichlorohydrin during manufacture produces higher molecular weight linear polyethers with glycidyl end groups, which are semi-solid to hard crystalline materials at room temperature depending on the molecular weight achieved. As the molecular weight of the resin increases, the epoxide content reduces and the material behaves more and more like a thermoplastic.

Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	>93.33	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	<50 when mixed as intended

# **SECTION 10 Stability and reactivity**

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> </ul>
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

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In animal testing, exposure to aerosols of reactive diluents (especially o-cresol glycidyl ether, CAS RN:2210-79-9) has been reported to affect the adrenal gland, central nervous system, kidney, liver, ovaries, spleen, testes, thymus and respiratory tract. Inhalation hazard is increased at higher temperatures. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Reactive diluents exhibit a range of ingestion hazards. Small amounts swallowed incidental to normal handling operations are not likely to cause Ingestion injury. Animal testing showed that a single dose of bisphenol A diglycidyl ether (BADGE) given by mouth, caused an increase in immature sperm. At sufficiently high doses the material may be hepatotoxic (i.e. poisonous to the liver). At sufficiently high doses the material may be nephrotoxic (i.e. poisonous to the kidney). The material may accentuate any pre-existing dermatitis condition Bisphenol A diglycidyl ether (BADGE) may produce contact dermatitis characterized by redness and swelling, with weeping followed by crusting and scaling. A liquid resin with a molecular weight of 350 produced severe skin irritation when applied daily for 4 hours over 20 days. Skin contact with reactive diluents may cause slight to moderate irritation with local redness. Repeated or prolonged skin contact may cause burns. **Skin Contact** 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. Skin contact with the material may be harmful; systemic effects may result following absorption. The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Eye contact with reactive diluents may cause slight to severe irritation with the possibility of chemical burns or moderate to severe damage to the cornea Eve This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure. Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There is sufficient evidence to suggest that this material directly causes cancer in humans. Ample evidence exists, from results in experimentation, that developmental disorders are directly caused by human exposure to the material. Glycidyl ethers can cause genetic damage and cancer. Bisphenol A diglycidyl ethers (BADGEs) produce a sensitization dermatitis (skin inflammation) characterized by eczema with blisters and Chronic papules, with considerable itching of the back of the hand. This may persist for 10-14 days after withdrawal from exposure and recur immediately on re-exposure. For some reactive diluents, prolonged or repeated skin contact may result in absorption of potentially harmful amounts or allergic skin reactions. Exposure to some reactive diluents (notably, neopentylglycol diglycidyl ether, CAS RN: 17557-23-2) has caused cancer in some animal testing. Bisphenol F, bisphenol A, fluorine-containing bisphenol A (bisphenol AF) and other diphenylalkanes were found to have oestrogen-like effects. Bisphenol F is present in the environment and as a contaminant of food, so humans may therefore be exposed to bisphenol. Bisphenol A may have effects similar to female sex hormones and when administered to pregnant women, may damage the foetus. It may also damage male reproductive organs and sperm.

/apor Solve Low Perm "A" Delta	TOXICITY	IRRITATION
Fog	Not Available	Not Available
	TOXICITY	IRRITATION
bisphenol A diglycidyl ether polymer	Dermal (rabbit) LD50: 6000 mg/kg <sup>[2]</sup>	Not Available
polymer	Oral (Rat) LD50: >2400 mg/kg <sup>[2]</sup>	
	TOXICITY	IRRITATION
phenol/ formaldehyde glycidyl ether copolymer	dermal (rat) LD50: >400 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
emer copolymer	Oral (Rat) LD50: >5000 mg/kg <sup>[2]</sup>	Skin: adverse effect observed (irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>	Eye (rabbit): non-irritating *
o-cresyl glycidyl ether	Inhalation(Rat) LC50: >6.1 ppm4h <sup>[1]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>
	Oral (Rat) LD50: >2000 mg/kg <sup>[2]</sup>	Skin (rabbit): irritating *
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: 2000 mg/kg <sup>[2]</sup>	Eye (rabbit): 0.75 mg open SEVERE
Lange de la clastici	Inhalation(Rat) LC50: >4.178 mg/L4h <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
benzyl alcohol	Oral (Rat) LD50: 1230 mg/kg <sup>[2]</sup>	Skin (man): 16 mg/48h-mild
		Skin (rabbit):10 mg/24h open-mild
		Skin: no adverse effect observed (not irritating) <sup>[1]</sup>
	TOXICITY	IRRITATION
gamma-	Dermal (rabbit) LD50: 4247.9 mg/kg <sup>[2]</sup>	Not Available
glycidoxypropyltrimethoxysilane	Inhalation(Rat) LC50: >5.3 mg/L4h <sup>[2]</sup>	

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	Oral (Rat) LD50: 7010 mg/kg <sup>[2]</sup>				
	TOXI	CITY	IRRITATION		
	derma	al (hamster) LD50: >=10000 mg/kg <sup>[2]</sup>	Eye: no adverse effect observed (not irritating) <sup>[1]</sup>		
Titanium Dioxide Ti02	Inhala	ation(Rat) LC50: >2.28 mg/l4h <sup>[1]</sup>	Skin: no adverse effect observed (not irritating) <sup>[1]</sup>		
	Oral (	Rat) LD50: >=2000 mg/kg <sup>[1]</sup>			
=			icity 2. Value obtained from manufacturer's SDS. Unless otherwise		
	specified (	data extracted from RTECS - Register of Toxic Effect of chemica	al Substances		
Vapor Solve Low Perm "A" Delta Fog		related receptors (ERRs; not to be confused with estrogen red A suspected estrogen-related receptors (ERR) binding agent: Estrogen-related receptors (ERR, oestrogen-related receptors receptors but do not appear to bind estrogens or other tested energy homeostasis, oxidative metabolism and mitochondrial adipose tissue, white adipose tissue, placenta, macrophages, ERRs bind enhancers throughout the genome where they exe Although their overall functions remain uncertain, they also sh	The various members of the bisphenol family produce hormone like effects, seemingly as a result of binding to estrogen receptor- related receptors (ERRs; not to be confused with estrogen receptors) A suspected estrogen-related receptors (ERR) binding agent: Estrogen-related receptors (ERR, oestrogen-related receptors) are so named because of sequence homology with estrogen receptors but do not appear to bind estrogens or other tested steroid hormones. The ERR family have been demonstrated to control energy homeostasis, oxidative metabolism and mitochondrial biogenesis, while effecting mammalian physiology in the heart, brown adipose tissue, white adipose tissue, placenta, macrophages, and demonstrated additional roles in diabetes and cancer. ERRs bind enhancers throughout the genome where they exert effects on gene regulation Although their overall functions remain uncertain, they also share DNA-binding sites, co-regulators, and target genes with the conventional estrogen receptors ERalpha and ERbeta and may function to modulate estrogen signaling pathways.		
		sources such as kidney, heart, brown adipose tissue, cerebell normal adrenal cortex tissues, in which its expression is possi	lum, intestine, and skeletal muscle. ERRalpha has been detected in ibly related to adrenal development, with a possible role in fetal adrenal		
BISPHENOL A DIGLYCIDYL ETHER POLYMER		function, in dehydroepiandrosterone (DHEAS) production in adrenarche, and also in steroid production of post-adrenarche/adult life.  Bisphenol A diglycidyl ethers (BADGEs) produce a sensitization dermatitis (skin inflammation) characterized by eczema with blisters and papules, with considerable itching of the back of the hand. This may persist for 10-14 days after withdrawal from exposure and recur immediately on re-exposure.  Bisphenol A may have effects similar to female sex hormones and when administered to pregnant women, may damage the foetus. It may also damage male reproductive organs and sperm.  Glycidyl ethers can cause genetic damage and cancer.  The substance is classified by IARC as Group 3:  NOT classifiable as to its carcinogenicity to humans.  Evidence of carcinogenicity may be inadequate or limited in animal testing.  * [Reichold]; ** [Epoxylite Corp.]; for monomer			
PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER		The material may produce moderate eye irritation leading to in conjunctivitis.	inflammation. Repeated or prolonged exposure to irritants may produce		
O-CRESYL GLYCIDYL	ETHER	o-CGE is a direct-acting mutagen in in-vitro test systems. Studies in vivo, including micronucleus tests and assays in transgenic animals, showed no mutagenic activity. Causes sensitisation * * Huntsman Araldite DY-K/ CH SDS			
BENZYL ALCOHOL		Unlike benzylic alcohols, the beta-hydroxyl group of the members of benzyl alkyl alcohols contributes to break down reactions but do not undergo phase II metabolic activation. Though structurally similar to cancer causing ethyl benzene, phenethyl alcohol is only of negligible concern due to limited similarity in their pattern of activity.  For benzoates:  Benzyl alcohol, benzoic acid and its sodium and potassium salt have a common metabolic and excretion pathway. All but benzyl alcohol are considered to be unharmful and of low acute toxicity.  This is a member or analogue of a group of benzyl derivatives generally regarded as safe (GRAS), based partly on their self-limiting properties as flavouring substances in food. In humans and other animals, they are rapidly absorbed, broken down and excreted, with a wide safety margin.  The aryl alkyl alcohol (AAA) fragrance ingredients have diverse chemical structures, with similar metabolic and toxicity profiles. The AAA fragrances demonstrate low acute and subchronic toxicity by skin contact and swallowing.			
GLYCIDOXYPROPYLTRIMETHOXY	SAMMA- SILANE	Low molecular weight alkoxysilane can cause irreversible lung damage when inhaled at low dose. It is not an obvious skin irritant. For gamma-glycidopropyltrimehoxysilane (GPTMS): GPTMS undergoes rapid hydrolysis and the observed toxicity is expected to be due primarily to methanol and silanetriols. GPTMS is mildly irritating to the skin and eyes and is not a known skin sensitiser in humans or in animals.			
Vapor Solve Low Perm "A" Delt: O-CRESYL GLYCIDYL		Laboratory (in vitro) and animal studies show, exposure to the possibility of producing mutation.	e material may result in a possible risk of irreversible effects, with the		
Vapor Solve Low Perm "A" Delta Fog & BISPHENOL A DIGLYCIDYL ETHER POLYMER & PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER & O-CRESYL GLYCIDYL ETHER & BENZYL ALCOHOL		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.			
Vapor Solve Low Perm "A" Delta Fog & BENZYL ALCOHOL		Adverse reactions to fragrances in perfumes and fragranced cosmetic products include allergic contact dermatitis, irritant contact dermatitis, sensitivity to light, immediate contact reactions, and pigmented contact dermatitis. Airborne and connubial contact dermatitis occurs.  Fragrance allergens act as haptens, low molecular weight chemicals that cause an immune response only when attached to a carrier protein. However, not all sensitizing fragrance chemicals are directly reactive, but require previous activation.			
Vapor Solve Low Perm "A" Delt BISPHENOL A DIGLYCIDYL PO		skin.	ether (BADGE) caused mild to moderate, chronic, inflammation of the owed BADGE given over several months caused reduction in body		
Vapor Solve Low Perm "A" Delt BISPHENOL A DIGLYCIDYL POLYMER & PHENOL/ FORMALD GLYCIDYL ETHER COPO	ETHER EHYDE	The chemical structure of hydroxylated diphenylalkanes or bisphenols consists of two phenolic rings joined together through a bridging carbon. This class of endocrine disruptors that mimic oestrogens is widely used in industry, particularly in plastics.  Bisphenol A (BPA) and some related compounds exhibit oestrogenic activity in human breast cancer cell line MCF-7, but there were remarkable differences in activity.			
Vapor Solve Low Perm "A" Delt BISPHENOL A DIGLYCIDYL POLYMER & O-CRESYL GL ETHER & G	ETHER YCIDYL	Oxiranes (including glycidyl ethers and alkyl oxides, and epox toxicology. One such oxirane is ethyloxirane; data presented l	xides) share many common characteristics with respect to animal here may be taken as representative.		

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# Vapor Solve Low Perm "A" Delta Fog

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GLYCIDOXYPROPYLTRIMETHOXYSILANE
BISPHENOL A DIGLYCIDYL ETHER
POLYMER & O-CRESYL GLYCIDYL
ETHER & GAMMAGLYCIDOXYPROPYLTRIMETHOXYSILANE

For 1,2-butylene oxide (ethyloxirane):

In animal testing, ethyloxirane increased the incidence of tumours of the airways in animals exposed via inhalation. However, tumours were not observed in mice chronically exposed via skin.

PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER & BENZYL ALCOHOL

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.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	✓	Reproductivity	✓
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	×
Respiratory or Skin sensitisation	<b>✓</b>	STOT - Repeated Exposure	<b>✓</b>
Mutagenicity	<b>✓</b>	Aspiration Hazard	×

Legend:

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

Data available to make classification

# **SECTION 12 Ecological information**

### **Toxicity**

Vapor Solve Low Perm "A" Delta	Endpoint	Test Duration (hr)	Species	Value	Source
Fog	Not Available	Not Available Not Available Not Available		Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
bisphenol A diglycidyl ether polymer	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
phenol/ formaldehyde glycidyl ether copolymer	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	24h	Crustacea	1-10mg/l	Not Available
o-cresyl glycidyl ether	EC50	72h	Algae or other aquatic plants	~5.1mg/l	2
	LC50	96h	Fish	1-10mg/l	Not Available
	EC50	48h	Crustacea	~3.3mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	10mg/l	4
	EC50	72h	Algae or other aquatic plants	500mg/l	2
benzyl alcohol	EC50	48h	Crustacea	230mg/l	2
	NOEC(ECx)	336h	Fish	5.1mg/l	2
	EC50	96h	Algae or other aquatic plants	Algae or other aquatic plants 76.828mg/l	
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	96h	Fish	1.5mg/l	2
gamma-	EC50	96h	Algae or other aquatic plants	250mg/l	2
glycidoxypropyltrimethoxysilane	EC50	72h	Algae or other aquatic plants	>420mg/l	2
	LC50	96h	Fish	4.9mg/l	2
	EC50	48h	Crustacea	473mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<1.1-9.6	7
	LC50	96h	Fish	1.85-3.06mg/l	4
Titanium Dioxide Ti02	EC50	72h	Algae or other aquatic plants	3.75-7.58mg/l	4
	EC50	48h	Crustacea	1.9mg/l	2
	EC50	96h	Algae or other aquatic plants	179.05mg/l	2
	NOEC(ECx)	504h	Crustacea	0.02mg/l	4

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

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## Vapor Solve Low Perm "A" Delta Fog

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

Liquid epoxy resins and some reactive diluents are not readily biodegradable, although its epoxy functional groups are hydrolysed in contact with water, they have the potential to bio-accumulate and are moderately toxic to aquatic organisms. They are generally classified as dangerous for the environment according to the European Union classification criteria. For bisphenol A and related bisphenols:

Environmental fate:

of equipment wash-waters.

Biodegradability (28 d) 89% - Easily biodegradable

Bioconcentration factor (BCF) 7.8 mg/l

Bisphenol A, its derivatives and analogues, can be released from polymers, resins and certain substances by metabolic products

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII

As an environmental contaminant, bisphenol A interferes with nitrogen fixation at the roots of leguminous plants associated with the bacterial symbiont Sinorhizobium meliloti. Despite a half-life in the soil of only 1-10 days, its ubiquity makes it an important pollutant.

Reactive diluents generally have a low to moderate potential for bioconcentration (tendency to accumulate in the food chain) and a high to very high potential for mobility in soil. Small amounts that escape to the atmosphere will photodegrade.

Environmental toxicity is a function of the n-octanol/water partition coefficient (log Pow, log Kow). Compounds with log Pow >5 act as neutral organics, but at a lower log Pow, the toxicity of epoxide-containing polymers is greater than that predicted for simple narcotics

Significant environmental findings are limited. Oxiranes (including glycidyl ethers and alkyl oxides, and epoxides) exhibit common characteristics with respect to environmental fate and ecotoxicology.

For 1.2-Butvlene oxide (Ethyloxirane):

log Kow values of 0.68 and 0.86. BAF and BCF: 1 to 17 L./kg.

For Phenols:

Ecotoxicity - Phenols with log Pow >7.4 are expected to exhibit low toxicity to aquatic organisms however; the toxicity of phenols with a lower log Pow is variable. Dinitrophenols are more toxic than predicted from QSAR estimates.

DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
bisphenol A diglycidyl ether polymer	HIGH	HIGH
o-cresyl glycidyl ether	HIGH	HIGH
benzyl alcohol	LOW	LOW
gamma- glycidoxypropyltrimethoxysilane	HIGH	HIGH
Titanium Dioxide Ti02	HIGH	HIGH

#### Bioaccumulative potential

Ingredient	Bioaccumulation
bisphenol A diglycidyl ether polymer	LOW (LogKOW = 2.6835)
o-cresyl glycidyl ether	LOW (LogKOW = 2.1609)
benzyl alcohol	LOW (LogKOW = 1.1)
gamma- glycidoxypropyltrimethoxysilane	LOW (LogKOW = -0.9152)
Titanium Dioxide Ti02	LOW (BCF = 10)

## Mobility in soil

Ingredient	Mobility
bisphenol A diglycidyl ether polymer	LOW (KOC = 51.43)
o-cresyl glycidyl ether	LOW (KOC = 67.93)
benzyl alcohol	LOW (KOC = 15.66)
gamma- glycidoxypropyltrimethoxysilane	LOW (KOC = 90.22)
Titanium Dioxide Ti02	LOW (KOC = 23.74)

## **SECTION 13 Disposal considerations**

## Waste treatment methods

- Containers may still present a chemical hazard/ danger when empty.
- ▶ Return to supplier for reuse/ recycling if possible.

# Waste Management

Production waste from epoxy resins and resin systems should be treated as hazardous waste in accordance with National regulations. Fire retarded resins containing halogenated compounds should also be treated as special waste.

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. Product / Packaging disposal

It may be necessary to collect all wash water for treatment before disposal.

Removal of bisphenol A (BPA) from aqueous solutions was accomplished by adsorption of enzymatically generated quinone derivatives on chitosan beads. The use of chitosan in the form of beads was found to be more effective because heterogeneous removal of BPA with chitosan beads was much faster than homogeneous removal of BPA with chitosan solutions, and the removal efficiency was enhanced by increasing the amount of chitosan beads dispersed in the BPA solutions and BPA was completely removed by quinone adsorption in the presence of chitosan beads more than 0.10 cm3/cm3.

- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.

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# Vapor Solve Low Perm "A" Delta Fog

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# **SECTION 14 Transport information**

## **Labels Required**



Marine Pollutant



## Land transport (DOT)

UN number or ID number	3082		
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains bisphenol A diglycidyl ether polymer)		
Transport hazard class(es)	Class 9 Subsidiary risk Not Applicable		
Packing group			
Environmental hazard	Environmentally hazardous		
Special precautions for user         Hazard Label         9           Special provisions         8, 146, 173, 335, 441, IB3, T4, TP1, TP29			

For Individual Packages of Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 that contain LESS THAN the reportable quantity (5 kg or 5 L) - Not Regulated

For Individual Packages of Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 that contain MORE THAN the reportable quantity (5 kg or 5 L) - Regulated and classified as below:

# Air transport (ICAO-IATA / DGR)

UN number	3082			
UN proper shipping name	Environmentally hazardo	Environmentally hazardous substance, liquid, n.o.s. (contains bisphenol A diglycidyl ether polymer)		
	ICAO/IATA Class	ss 9		
Transport hazard class(es)	ICAO / IATA Subrisk	Not Applicable		
	ERG Code	9L		
Packing group	III			
Environmental hazard	Environmentally hazardous			
	Special provisions		A97 A158 A197 A215	
	Cargo Only Packing Instructions		964	
	Cargo Only Maximum Qty / Pack		450 L	
Special precautions for user	Passenger and Cargo Packing Instructions		964	
	Passenger and Cargo Maximum Qty / Pack		450 L	
	Passenger and Cargo Limited Quantity Packing Instructions		Y964	
	Passenger and Cargo Limited Maximum Qty / Pack		30 kg G	

# Sea transport (IMDG-Code / GGVSee)

sea transport (impo-code / GGYSee)				
UN number	3082	3082		
UN proper shipping name	ENVIRONMENTALLY	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether polymer)		
Transport hazard class(es)	IMDG Class 9 IMDG Subrisk Not Applicable			
Packing group	III			
Environmental hazard	Marine Pollutant			
Special precautions for user	EMS Number Special provisions Limited Quantities	F-A, S-F 274 335 969 5 L		

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

Not Applicable

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Product name	Group
bisphenol A diglycidyl ether polymer	Not Available
phenol/ formaldehyde glycidyl ether copolymer	Not Available
o-cresyl glycidyl ether	Not Available
benzyl alcohol	Not Available
gamma- glycidoxypropyltrimethoxysilane	Not Available
Titanium Dioxide Ti02	Not Available

#### Transport in bulk in accordance with the IGC Code

Product name	Ship Type
bisphenol A diglycidyl ether polymer	Not Available
phenol/ formaldehyde glycidyl ether copolymer	Not Available
o-cresyl glycidyl ether	Not Available
benzyl alcohol	Not Available
gamma- glycidoxypropyltrimethoxysilane	Not Available
Titanium Dioxide Ti02	Not Available

# **SECTION 15 Regulatory information**

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

ш	hienhanal A	dialycidyl other	nalymar is four	d on the followir	a rogulatory liete

Chemical Footprint Project - Chemicals of High Concern List

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

US TSCA Chemical Substance Inventory - Interim List of Active Substances

## phenol/ formaldehyde glycidyl ether copolymer 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

# o-cresyl glycidyl ether 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

# benzyl alcohol is found on the following regulatory lists

US - Massachusetts - Right To Know Listed Chemicals

US AIHA Workplace Environmental Exposure Levels (WEELs)

US DOE Temporary Emergency Exposure Limits (TEELs)

US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US Toxicology Excellence for Risk Assessment (TERA) Workplace Environmental Exposure Levels (WEEL)

US TSCA Chemical Substance Inventory - Interim List of Active Substances

# gamma-glycidoxypropyltrimethoxysilane is found on the following regulatory lists

US DOE Temporary Emergency Exposure Limits (TEELs)

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

US TSCA Chemical Substance Inventory - Interim List of Active Substances

## Titanium Dioxide Ti02 is found on the following regulatory lists

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2B: Possibly carcinogenic to humans

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 - California Proposition 65 - Carcinogens

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

US - Massachusetts - Right To Know Listed Chemicals

# US DOE Temporary Emergency Exposure Limits (TEELs)

US List of Active Substances Exempt from the TSCA Inventory Notifications (Active-Inactive) Rule

US NIOSH Carcinogen List

US NIOSH Recommended Exposure Limits (RELs)

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

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

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

## **Federal Regulations**

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

## Casting 244/242 hazard astanosisa

	Section 311/312 hazard categories		
	Flammable (Gases, Aerosols, Liquids, or Solids)	No	
Gas under pressure		No	
	Explosive	No	
	Self-heating Self-heating	No	
	Pyrophoric (Liquid or Solid)		
	Pyrophoric Gas	No	

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# Vapor Solve Low Perm "A" Delta Fog

No Corrosive to metal 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 Yes Specific target organ toxicity (single or repeated exposure) Yes Aspiration Hazard Nο Germ cell mutagenicity Yes Simple Asphyxiant No Hazards Not Otherwise Classified No

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

## **State Regulations**

## US. California Proposition 65



MARNING: This product can expose you to chemicals including Titanium Dioxide Ti02, which is known to the State of California to cause cancer. For more information, go to

# **National Inventory Status**

National Inventory	Status		
Australia - AIIC / Australia Non-Industrial Use	Yes		
Canada - DSL	Yes		
Canada - NDSL	No (bisphenol A diglycidyl ether polymer; phenol/ formaldehyde glycidyl ether copolymer; o-cresyl glycidyl ether; benzyl alcohol; gamma-glycidoxypropyltrimethoxysilane; Titanium Dioxide Ti02)		
China - IECSC	Yes		
Europe - EINEC / ELINCS / NLP	No (bisphenol A diglycidyl ether polymer)		
Japan - ENCS No (bisphenol A diglycidyl ether polymer; phenol/ formaldehyde glycidyl ether copolymer)  Korea - KECI Yes			
		New Zealand - NZIoC	Yes
Philippines - PICCS         Yes           USA - TSCA         Yes           Taiwan - TCSI         Yes			
		Mexico - INSQ	No (o-cresyl glycidyl ether; gamma-glycidoxypropyltrimethoxysilane)
		Vietnam - NCI	Yes
Russia - FBEPH	No (o-cresyl glycidyl ether)		
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 regis			

## **SECTION 16 Other information**

Revision Date	03/20/2023
Initial Date	09/23/2022

# CONTACT POINT

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

## **SDS Version Summary**

Version	Date of Update	Sections Updated
1.3	09/26/2022	Composition / information on ingredients - Ingredients, 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.

# **Definitions and abbreviations**

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# Vapor Solve Low Perm "A" Delta Fog

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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 $_{\circ}$ 

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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