

ICP Construction Inc.

Version No: 2.4

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

Issue Date: 06/02/2023 Print Date: 06/02/2023 S.GHS.USA.EN

SECTION 1 Identification

Product Identifier

Product name	Epoxy 300 B Flex	
Synonyms	Not Available	
Proper shipping name	Amines, liquid, corrosive, n.o.s. (Benzene-1, 3-dimethaneamine (MXDA), Cycloaliphatic amine)	
Other means of identification	Not Available	

Recommended use of the chemical and restrictions on use

Relevant identified uses Specialty flooring curative

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

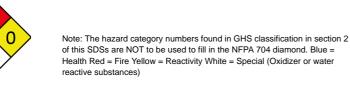
Registered company name	ICP Construction Inc.
Address	150 Dascomb Road Andover, MA 01810 United States
Telephone	1-866-667-5119 1-978-623-9987
Fax	Not Available
Website	www.icpgroup.com
Email	sds@icpgroup.com

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



Classification	Skin Corrosion/Irritation Category 1B, Hazardous to the Aquatic Environment Acute Hazard Category 3, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Reproductive Toxicity Category 2, Sensitisation (Skin) Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 3	
Label elements		
Hazard pictogram(s)		
Signal word	Danger	
Hazard statement(s)		
H314	Causes severe skin burns and eye damage.	

H332	Harmful if inhaled.
H302	Harmful if swallowed.
H361	Suspected of damaging fertility or the unborn child.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P264	Wash all exposed external body areas thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing must not be allowed out of the workplace.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P312	Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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
100-51-6*	30-60	benzyl alcohol
1477-55-0*	10-30	m-xylenediamine
2855-13-2*	10-30	isophorone diamine
98-54-4*	5-10	p-tert-butylphenol
90-72-2*	5-10	2.4.6-tris[(dimethylamino)methyl]phenol

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: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. For amines: If liquid amines come in contact with the eyes, irrigate immediately and continuously with low pressure flowing water, preferably from an eye wash fountain, for 15 to 30 minutes. For more effective flushing of the eyes, use the fingers to spread apart and hold open the eyelids. The eyes should then be "rolled" or moved in all directions.
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	Seek immediate medical attention, preferably from an ophthalmologist.
Skin Contact	 If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor. For amines: In case of major exposure to liquid amine, promptly remove any contaminated clothing, including rings, watches, and shoe, preferably under a safety shower. Wash skin for 15 to 30 minutes with plenty of water and soap. Call a physician immediately. Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing. Discard contaminated leather articles such as shoes, belts, and watchbands. Note to Physician: Treat any skin burns as thermal burns. After decontamination, consider the use of cold packs and topical antibiotics.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered. This must definitely be left to a doctor or person authorised by him/her. (ICSC13719) For amines: All employees working in areas where contact with amine catalysts is possible should be thoroughly trained in the administration of appropriate first aid procedures. Experience has demonstrated that prompt administration of such aid can minimize the effects of accidental exposure. Promptly move the affected person calm and warm, but not hot. If breathing is difficult, oxygen may be administered by a qualified person. If breathing stops, give artificial respiration. Call a physician at once.
Ingestion	 For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. 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 casualty can comfortably drink. Transport to hospital or doctor without delay. For amines: If liquid amine are ingested, have the affected person drink several glasses of water or milk. Do not induce vomiting. Immediately transport to a medical facility and inform medical personnel about the nature of the exposure. The decision of whether to induce vomiting should be made by an attending physician.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- + Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- ▶ The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

INGESTION:

Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

- ▶ Neutralising agents should never be given since exothermic heat reaction may compound injury.
- * Catharsis and emesis are absolutely contra-indicated.
- * Activated charcoal does not absorb alkali.
- * Gastric lavage should not be used.
- Supportive care involves the following: • Withhold oral feedings initially.
- If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).
- SKIN AND EYE:
- Injury should be irrigated for 20-30 minutes.
- Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]
- For amines: Certain amines may cause injury to the respiratory tract and lungs if aspirated. Also, such products may cause tissue destruction leading to stricture. If lavage is performed,
- endotracheal and/or esophagoscopic control is suggested.
- No specific antidote is known.
- Care should be supportive and treatment based on the judgment of the physician in response to the reaction of the patient.

Laboratory animal studies have shown that a few amines are suspected of causing depletion of certain white blood cells and their precursors in lymphoid tissue. These effects may be

due to an immunosuppressive mechanism.

Some persons with hyperreactive airways (e.g., asthmatic persons) may experience wheezing attacks (bronchospasm) when exposed to airway irritants.

Lung injury may result following a single massive overexposure to high vapour concentrations or multiple exposures to lower concentrations of any pulmonary irritant material.

Health effects of amines, such as skin irritation and transient corneal edema ("blue haze," "halo effect," "glaucopsia"), are best prevented by means of formal worker education, industrial business provide and exposure control methods. Persons who are highly constitue to the triggering effect of pon-specific irritants should not be assigned to jobs in who

industrial hygiene monitoring, and exposure control methods. Persons who are highly sensitive to the triggering effect of non-specific irritants should not be assigned to jobs in which such agents are used, handled, or manufactured.

Medical surveillance programs should consist of a pre-placement evaluation to determine if workers or applicants have any impairments (e.g., hyperreactive airways or bronchial asthma) that would limit their fitness for work in jobs with potential for exposure to amines. A clinical baseline can be established at the time of this evaluation.

Periodic medical evaluations can have significant value in the early detection of disease and in providing an opportunity for health counseling.

Medical personnel conducting medical surveillance of individuals potentially exposed to polyurethane amine catalysts should consider the following:

- Health history, with emphasis on the respiratory system and history of infections
- Physical examination, with emphasis on the respiratory system and the lymphoreticular organs (lymph nodes, spleen, etc.)
- Lung function tests, pre- and post-bronchodilator if indicated
- Total and differential white blood cell count
- Serum protein electrophoresis
- Persons who are concurrently exposed to isocyanates also should be kept under medical surveillance.

Pre-existing medical conditions generally aggravated by exposure include skin disorders and allergies, chronic respiratory disease (e.g. bronchitis, asthma, emphysema), liver disorders, kidney disease, and eye disease.

Broadly speaking, exposure to amines, as characterised by amine catalysts, may cause effects similar to those caused by exposure to ammonia. As such, amines should be considered potentially injurious to any tissue that is directly contacted.

Inhalation of aerosol mists or vapors, especially of heated product, can result in chemical pneumonitis, pulmonary edema, laryngeal edema, and delayed scarring of the airway or other affected organs. There is no specific treatment.

Clinical management is based upon supportive treatment, similar to that for thermal burns.

Persons with major skin contact should be maintained under medical observation for at least 24 hours due to the possibility of delayed reactions.

Polyurethene Amine Catalysts: Guidelines for Safe Handling and Disposal Technical Bulletin June 2000

Alliance for Polyurethanes Industry

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 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. For amines: For firefighting, cleaning up large spills, and other emergency operations, workers must wear a self-contained breathing apparatus with full face-piece, operated in a pressure-demand mode. Airline and air purifying respirators should not be worn for firefighting or other emergency or upset conditions. Respirators should be used in conjunction with a respiratory protection program, which would include suitable fit testing and medical evaluation of the user.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. Combustion products include: carbon dioxide (CO2) other pyrolysis products typical of burning organic material. May emit corrosive fumes.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. for amines: If possible (i.e., without risk of contact or exposure), stop the leak. Contain the spilled material by diking, then neutralize. Next, absorb the neutralized product with clay, sawdust, vermiculite, or other inert absorbent and shovel into containers.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus.

	 For amines: First remove all ignition sources from the spill area. Have firefighting equipment nearby, and have firefighting personnel fully trained in the proper use of the equipment and in the procedures used in fighting a chemical fire. Spills and leaks of polyurethane amine catalysts should be contained by diking, if necessary, and cleaned up only by properly trained and equipped personnel.
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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	 Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. DO NOT store near acids, or oxidising agents No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable container	 Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. For low viscosity materials Drums and jerricans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt.
Storage incompatibility	 Avoid reaction with oxidising agents Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	m-xylenediamine	m-Xylene-alpha,alpha'-diamine	Not Available	Not Available	0.1 mg/m3	[skin]
US OSHA Permissible Exposure Limits (PELs) Table Z-1	p-tert- butylphenol	Particulates Not Otherwise Regulated (PNOR)- Respirable fraction	5 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-1	p-tert- butylphenol	Particulates Not Otherwise Regulated (PNOR)- Total dust	15 mg/m3	Not Available	Not Available	Not Available
US OSHA Permissible Exposure Limits (PELs) Table Z-3	p-tert- butylphenol	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	p-tert- butylphenol	Inert or Nuisance Dust: Respirable fraction	5 mg/m3 / 15 mppcf	Not Available	Not Available	Not Available
US NIOSH Recommended Exposure Limits (RELs)	p-tert- butylphenol	Particulates not otherwise regulated	Not Available	Not Available	Not Available	See Appendix D

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
benzyl alcohol	30 ppm	52 ppm	740 ppm
p-tert-butylphenol	1.5 mg/m3	40 mg/m3	240 mg/m3
2,4,6- tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3	430 mg/m3

Ingredient	Original IDLH	Revised IDLH
benzyl alcohol	Not Available	Not Available
m-xylenediamine	Not Available	Not Available
isophorone diamine	Not Available	Not Available
p-tert-butylphenol	Not Available	Not Available
2,4,6- tris[(dimethylamino)methyl]phenol	Not Available	Not Available

Occupational Exposure Banding

Ingredient

Occupational Exposure Band Rating

Occupational Exposure Band Limit

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Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
benzyl alcohol	E	≤ 0.1 ppm
isophorone diamine	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	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk.
Individual protection measures, such as personal protective equipment	
Eye and face protection	 Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure. Chemical goggles.whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection. For amines: SPECIAL PRECAUTION: Because amines are alkaline materials that can cause rapid and severe tissue damage, wearing of contact lenses while working with amines is strongly discouraged. Wearing such lenses can prolong contact of the eye tissue with the amine, thereby causing more severe damage. Appropriate eye protection should be worn whenever amines are handled or whenever there is any possibility of direct contact with liquid products, vapors, or aerosol mists.
Skin protection	See Hand protection below
Hands/feet protection	 Elbow length PVC gloves When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. 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. 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. For amines: Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended Where there is a possibility of exposure to liquid amines skin protection should include: rubber gloves, (neoprene, nitrile, or butyl).
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe.

Respiratory protection

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

- + Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

Where engineering controls are not feasible and work practices do not reduce airborne amine concentrations below recommended exposure limits, appropriate respiratory protection should be used. In such cases, air-purifying respirators equipped with cartridges designed to protect against amines are recommended.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Not Available		
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)	99	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	<25 when mixed as intenced

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	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane. Inhalation of amine vapours may cause irritation of the mucous membrane of the nose and throat, and lung irritation with respiratory distress and cough. Swelling and inflammation of the respiratory tract is seen in serious cases; with headache, nausea, faintness and anxiety.
Ingestion	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. Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhoea may follow. Ingestion of amine epoxy-curing agents (hardeners) may cause severe abdominal pain, nausea, vomiting or diarrhoea. The vomitus may contain blood and mucous. Amines without benzene rings when swallowed are absorbed throughout the gut. Corrosive action may cause damage throughout the gastrointestinal tract.
Skin Contact	Skin contact is not thought to produce harmful health effects (as classified under EC Directives using animal models). Systemic harm, however, has been identified following exposure of animals by at least one other route and the material may still produce health damage following entry through wounds, lesions or abrasions. Volatile amine vapours produce irritation and inflammation of the skin. Direct contact can cause burns. Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness. Vapours of volatile amines irritate the eyes, causing excessive secretion of tears, inflammation of the conjunctiva and slight swelling of the cornea, resulting in 'halos' around lights. This effect is temporary, lasting only for a few hours. However this condition can reduce the efficiency of undertaking skilled tasks, such as driving a car.
Chronic	Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems.

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A	kin contact with the material is more likely to cause mple evidence from experiments exists that there i ubstance accumulation, in the human body, may o	is a suspicion this n	nater	ial directly reduces fertili	ity.
	ΤΟΧΙΟΙΤΥ			IRRITATION	
Epoxy 300 B Flex	Not Available			Not Available	
	TOXICITY IRRIT		TATION		
	Dermal (rabbit) LD50: 2000 mg/kg ^[2] Ey		Eye (rabbit): 0.75 mg open Sl	EVERE
benzyl alcohol			-	adverse effect observed	(irritating) ^[1]
				(man): 16 mg/48h-mild	
	Inhalation (Rat)LCLo: 2000 ppm/4h ^[2]			Skin (rabbit):10 mg/24h open-mild	
	Oral (Rat) LD50: 1230 mg/kg ^[2] Skin: no adverse effect observed (not irritating) ^[1]				
	ΤΟΧΙΟΙΤΥ			IRRITATION	
	Dermal (rabbit) LD50: 2000 mg/kg ^[2]			Eye (rabbit): 0.05 mg/2	4h SEVERE
m-xylenediamine	Inhalation(Rat) LC50: 700 ppm/1h ^[2]			Skin (rabbit): 0.75 mg/2	
	Oral (Rat) LD50: 930 mg/kg ^[2]			. , .	
	ΤΟΧΙΟΙΤΥ				IRRITATION
isophorone diamine	Oral (Rat) LD50: 1030 mg/kg ^[2]				Not Available
	ΤΟΧΙCΙΤΥ		IRRI	TATION	
	Dermal (rabbit) LD50: 2288 mg/kg ^[2]		Eye	e (rabbit) 0.05 mg/24h - SEVERE	
a test but debes al	Oral (Rat) LD50: 2951 mg/kg ^[2] Eye		e (rabbit): 10 mg - SEVERE		
p-tert-butylphenol	Eye:		e: adverse effect observed (irritating) ^[1]		
	Skir		Skin	xin (rabbit): 500 mg/4h - mild	
	Skin: adverse effect observed (irritating) ^[1]			d (irritating) ^[1]	
2,4,6-	Dermal (rabbit) LD50: 1280 mg/kg ^[2] Eye (rabbit): 0.05 mg/24h - SEVERE [Rohm & Haas, Henkel]* [Ciba]				
tris[(dimethylamino)methyl]phenol	Inhalation(Rat) LC50: >0.5 mg/l/1 hr. ^[2] Oral (Rat) LD50: 1200 mg/kg ^[2]	Eye: adverse effect observed (irreversible damage) ^[1] Skin (rabbit): 2 mg/24h - SEVERE			damage) ^{, ,}
	Oral (Rat) LD50: 2500 mg/kg *[2]		-	ct observed (corrosive) ^{[1}	1]
			0110		
	Value obtained from Europe ECHA Registered So pecified data extracted from RTECS - Register of T			•	n manufacturer's SDS. Unless otherwise
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. They may cause slight irritation by oral, dermal or inhalation exposure except sodium benzoate which doesn't irritate the skin. 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. Contact allergy is a lifelong condition, so symptoms may occur on re-exposure. 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. A prehapten is a chemical that itself causes little or no sensitization, but is transformed into a hapten in the skin (bioactivation), usually via enzyme catalysis. 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. They also lack significant potential to cause genetic toxicity and mutations. 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. At concentrat				
m-xylenediamine	Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure. For benzene-1,3-dimethanamine (m-xylene-alpha, alpha -diamine): Animal testing showed that benzene-1,3-methanamine caused tissue damage to the digestive and respiratory organs, if given by mouth or				

		inhaled, respectively. The chemical is corrosive to animal skin, and may cause sensitize or ability to cause mutations.	ation. Testing has not shown any reproductive toxicity		
isophorone diamir	ne	Isophorone diamine is a strong skin irritant, corrosive with repeated application. Frequent occupational exposure may lead to the development of allergic skin inflammation. There could be damage to the smell organ, throat and lungs following inhalational exposure. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.			
p-tert-butylphen	ol	These substances are intravenous anaesthetic agents. They have a very low level of acute toxicity; they may cause skin irritation. Repeated exposure may irritate the stomach. For p-tert-butylphenol: p-tert-butylphenol has low acute toxicity via all routes. It irritates the skin, eyes and airway. It may cause skin sensitisation in humans.			
2,4, tris[(dimethylamino)methyl]phen		No significant acute toxicological data identified in literature search.			
Epoxy 300 B Flex m-xylenediamine & isophoror diamine & p-tert-butylphenol 2,4, tris[(dimethylamino)methyl]phen	ne & 6-	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.			
Epoxy 300 B Flex & benzyl alcoh & m-xylenediamine & isophoror diamin	ne	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. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.			
Epoxy 300 B Flex m-xylenediamine & 2,4, tris[(dimethylamino)methyl]phen	6-	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain.			
benzyl alcohol & isophoror diamine & p-tert-butylphen		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.			
m-xylenediamine & p-ter butylphenol & 2,4, tris[(dimethylamino)methyl]phen	6-	The material may produce severe irritation to the eye causing pronounced inflammation produce conjunctivitis.	 Repeated or prolonged exposure to irritants may 		
m-xylenediamine & 2,4, tris[(dimethylamino)methyl]phen		The material may cause severe skin irritation after prolonged or repeated exposure and production of vesicles, scaling and thickening of the skin. Repeated exposures may pro-			
Acute Toxicity	•	Carcinogenicity	×		
Skin Irritation/Corrosion	~	Reproductivity	×		
Serious Eye Damage/Irritation	~	STOT - Single Exposure	×		
Respiratory or Skin sensitisation	~	STOT - Repeated Exposure	×		
	×	Aspiration Hazard	×		

Crustacea

Data available to make classification

SECTION 12 Ecological information

NOEC(ECx)

504h

	Endpoint	Test Duration (hr)	Species	Value	Source
Epoxy 300 B Flex	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	LC50	96h	Fish	10mg/	1 4
benzyl alcohol	EC50	72h	Algae or other aquatic pla	ants 500mg	g/l 2
	EC50	48h	Crustacea	230mg	g/l 2
	NOEC(ECx)	336h	Fish	5.1mg	/I 2
	EC50	96h	Algae or other aquatic pla	ants 76.828	3mg/l 2
	Endpoint	Test Duration (hr)	Species	Val	ue Source
	BCF	1008h	Fish	<0.	3 7
	LC50	96h	Fish	75n	ng/l 2
m-xylenediamine	EC50	72h	Algae or other aquatic p	lants 12n	ng/l 2
	EC50	48h	Crustacea	15.3	2mg/l 2
					0

2

4.7mg/l

	Endpoint	Test Duration (hr)	Species	Value	Source
	BCF	1008h	Fish	<0.3	7
·	NOEC(ECx)	72h	Algae or other aquatic plants	1.5mg/l	1
isophorone diamine	EC50	72h	Algae or other aquatic plants	37mg/l	1
	LC50	96h	Fish	70mg/l	1
	EC50	48h	Crustacea	14.6-21.5r	ng/l 4
	Endpoint	Test Duration (hr)	Species	Value	Source
p-tert-butylphenol	NOEC(ECx)	Not Reportedh	Crustacea	0.01mg	/I 4
	EC50	72h	Algae or other aquatic plants	~2.4mg	/I 2
	LC50	96h	Fish	>1mg/l	2
	EC50	48h	Crustacea	3.4-4.5	mg/l 4
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50(ECx)	24h	Crustacea	280mg/l	Not Available
2,4,6- tris[(dimethylamino)methyl]phenol	EC50	72h	Algae or other aquatic plants	2.8mg/l	2
unst(unneuryrannno)meuryrjpnenor	EC50	48h	Crustacea	>100mg/l	2
	LC50	96h	Fish	1000mg/l	Not Available

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Prevent, by any means available, spillage from entering drains or water courses.

1

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
benzyl alcohol	LOW	LOW
m-xylenediamine	HIGH	HIGH
isophorone diamine	HIGH	HIGH
p-tert-butylphenol	HIGH	HIGH
2,4,6- tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
benzyl alcohol	LOW (LogKOW = 1.1)
m-xylenediamine	LOW (BCF = 2.7)
isophorone diamine	LOW (BCF = 3.4)
p-tert-butylphenol	LOW (BCF = 240)
2,4,6- tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

Mobility in soil

Ingredient	Mobility
benzyl alcohol	LOW (KOC = 15.66)
m-xylenediamine	LOW (KOC = 914.6)
isophorone diamine	LOW (KOC = 340.4)
p-tert-butylphenol	LOW (KOC = 1912)
2,4,6- tris[(dimethylamino)methyl]phenol	LOW (KOC = 15130)

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:

Continued...

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Epoxy 300 B Flex

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 product.
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.
Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
Treat and neutralise at an approved treatment plant.

SECTION 14 Transport information

Labels Required



Shipping container and transport vehicle placarding and labeling may vary from the below information. Products that are regulated for transport will be packaged and marked as Dangerous Goods in Excepted Quantities according to US DOT, IATA and IMDG regulations. In case of reshipment, it is the responsibility of the shipper to determine the appropriate labels and markings in accordance with applicable transport regulations.

Land transport (DOT)

UN number or ID number	2735		
UN proper shipping name	nines, liquid, corrosive, n.o.s.(Benzene-1,3-dimethaneamine (MXDA), Cycloaliphatic amine)		
Transport hazard class(es)	Class 8 Subsidiary risk Not Applicable		
Packing group	II		
Environmental hazard	Not Applicable		
Special precautions for user	Hazard Label8Special provisionsB2, IB2, T11, TP1, TP27		

Air transport (ICAO-IATA / DGR)

UN number	2735			
UN proper shipping name	Amines, liquid, corrosive	e, n.o.s. * (Benzene-1,3-dimethaneamine	MXDA), Cycloaliphatic amine)	
Transport boyard alace/ac)	ICAO/IATA Class	8 Not Applicable		
Transport hazard class(es)	ERG Code	Not Applicable 8L		
Packing group	II	11		
Environmental hazard	Not Applicable			
	Special provisions		A3 A803	
	Cargo Only Packing Instructions		855	
	Cargo Only Maximum	Qty / Pack	30 L	
Special precautions for user	Passenger and Cargo	Packing Instructions	851	
	Passenger and Cargo	Maximum Qty / Pack	1 L	
	Passenger and Cargo	Limited Quantity Packing Instructions	Y840	
	Passenger and Cargo	Limited Maximum Qty / Pack	0.5 L	

Sea transport (IMDG-Code / GGVSee)

	5,666		
UN number	2735		
UN proper shipping name	MINES, LIQUID, CORROSIVE, N.O.S. (Benzene-1,3-dimethaneamine (MXDA), Cycloaliphatic amine)		
Transport hazard class(es)	IMDG Class 8 IMDG Subrisk Not Applicable		
Packing group	Ш		
Environmental hazard	Not Applicable		
Special precautions for user	EMS NumberF-A, S-BSpecial provisions274		

Limited Quantities 1 L

Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

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

Product name	Group
benzyl alcohol	Not Available
m-xylenediamine	Not Available
isophorone diamine	Not Available
p-tert-butylphenol	Not Available
2,4,6- tris[(dimethylamino)methyl]phenol	Not Available

Transport in bulk in accordance with the IGC Code

Product name	Ship Type
benzyl alcohol	Not Available
m-xylenediamine	Not Available
isophorone diamine	Not Available
p-tert-butylphenol	Not Available
2,4,6- tris[(dimethylamino)methyl]phenol	Not Available

SECTION 15 Regulatory information

Pyrophoric (Liquid or Solid)

Oxidizer (Liquid, Solid or Gas)

In contact with water emits flammable gas

Acute toxicity (any route of exposure)

Pyrophoric Gas

Corrosive to metal

Organic Peroxide

Combustible Dust

Carcinogenicity

Self-reactive

benzyl alcohol is found on the following regulatory lists		
US - Massachusetts - Right To Know Listed Chemicals	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	
US AIHA Workplace Environmental Exposure Levels (WEELs)	US Toxicology Excellence for Risk Assessment (TERA) Workplace Environmental	
US DOE Temporary Emergency Exposure Limits (TEELs)	Exposure Levels (WEEL)	
m-xylenediamine is found on the following regulatory lists		
US - Massachusetts - Right To Know Listed Chemicals	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	
US NIOSH Recommended Exposure Limits (RELs)		
isophorone diamine is found on the following regulatory lists		
US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory		
p-tert-butylphenol is found on the following regulatory lists		
International WHO List of Proposed Occupational Exposure Limit (OEL) Values for	US OSHA Permissible Exposure Limits (PELs) Table Z-1	
Manufactured Nanomaterials (MNMS) US OSHA Permissible Exposure Limits (PELs) Table Z-3		
US - Alaska Air Quality Control - Concentrations Triggering an Air Quality Episode for Air Pollutants Other Than PM-2.5	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	
US DOE Temporary Emergency Exposure Limits (TEELs)		
US NIOSH Recommended Exposure Limits (RELs)		
2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists		
US DOE Temporary Emergency Exposure Limits (TEELs)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory	
- ederal 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	
E statu	No	
Explosive		
Explosive Self-heating	No	

No

No

No

No

No

No

No

No

No

Yes

Reproductive toxicity	
Skin Corrosion or Irritation	
Respiratory or Skin Sensitization	
Serious eye damage or eye irritation	
Specific target organ toxicity (single or repeated exposure)	
Aspiration Hazard	
Germ cell mutagenicity	
Simple Asphyxiant	
Hazards Not Otherwise Classified	

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4) None Reported

State Regulations

US. California Proposition 65

None listed

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.	

SECTION 16 Other information

Revision Date	06/02/2023
Initial Date	05/15/2023

CONTACT POINT

SDS Version Summary

Version	Date of Update	Sections Updated
1.4	06/02/2023	Composition / information on ingredients - Ingredients

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch 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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