

ICP Construction

Version No: 1.1

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

Issue Date: 03/01/2017 Print Date: 03/01/2017 S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	verlife WB (HG)-Safety Yellow F52163	
Synonyms	Not Available	
Other means of identification	Not Available	

Recommended use of the chemical and restrictions on use

Relevant identified uses Paint

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

Registered company name	ICP Construction	
Address	50 Dascomb Road Massachusetts Andover United States	
Telephone	978-623-9980	
Fax	Not Available	
Website	Not Available	
Email	Not Available	

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	Reproductive Toxicity Category 2		
Label elements			



Hazard statement(s)

Suspected of damaging fertility or the unborn child.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) Prevention

H361

P201	Obtain special instructions before use.
P281	Use personal protective equipment as required.

Precautionary statement(s) Response

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P308+P313 IF exposed or concerned: Get medical advice/attention.

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501

Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
not avail.	66.76-66.8	Non-hazardous ingredient
1310-73-2	NotSpec.	sodium hydroxide
2634-33-5	NotSpec.	1,2-benzisothiazoline-3-one
124-68-5	0.1	monoisobutanolamine
97-88-1	<0.01	n-butyl methacrylate
7732-18-5	0.7-0.74	water
29911-28-2	3.9	dipropylene glycol mono-n-butyl ether - alpha isomer
111-77-3	1.8	diethylene glycol monomethyl ether
112-34-5	0.33	diethylene glycol monobutyl ether
19224-26-1	0.01	propylene glycol dibenzoate
1330-20-7	0.3-0.6	xylene
122-99-6	0.1-0.3	ethylene glycol phenyl ether
100-41-4	0.1-0.3	ethylbenzene
7632-00-0	0.1	sodium nitrite
51274-00-1	5.9	C.I. Pigment Yellow 42

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. 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. Seek medical advice. Avoid giving milk or oils. Avoid giving alcohol.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours. For acute or short term repeated exposures to xylene:

- + Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- Pulmonary absorption is rapid with about 60-65% retained at rest.
- Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or

- ▶ poor arterial blood gases (pO2 < 50 mm Hg or pCO2 > 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.
 BIOLOGICAL EXPOSURE INDEX BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant Methylhippu-ric acids in urine	Index 1.5 gm/gm creatinine 2 mg/min	Sampling Time End of shift Last 4 hrs of shift	Comments
	5		

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.

Special protective equipment and precautions for fire-fighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	 Non combustible. Not considered a significant fire risk, however containers may burn. May emit poisonous fumes. 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	 Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	 Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling Safe handling A safe handling Base hilling

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	Avoid all personal contact, including inhalation.
	 Wear protective clothing when risk of exposure occurs.
	► Use in a well-ventilated area.
	Avoid contact with moisture.
	 Avoid contact with incompatible materials.
	▶ When handling, DO NOT eat, drink or smoke.
	Keep containers securely sealed when not in use.
	 Avoid physical damage to containers.
	Always wash hands with soap and water after handling.
	Work clothes should be laundered separately. Launder contaminated clothing before re-use.
	 Use good occupational work practice.
	 Observe manufacturer's storage and handling recommendations contained within this SDS.
	Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
	DO NOT allow clothing wet with material to stay in contact with skin
Other information	

Conditions for safe storage, including any incompatibilities

Suitable container	 Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 For iron oxide (ferric oxide): Avoid storage with alurninum, calcium hypochlorite and ethylene oxide. Risk of explosion occurs following reaction with powdered alurninum, calcium silicide, ethylene oxide (polymerises), carbon monoxide, magnesium and perchlorates. Risk of ignition or formation of flammable gases or vapours occurs following reaction with carbides, for example caesium carbide, (produces heat), hydroge sulfde, hydrogen percyclide (accomposes). An intimately powered mixture with alurninium, usually ignited by magnesium ribbon, reacts with an intense exotherm to produce molten iron in the commercia "thermit" welding process Xylenes: may ignite or explode in contact with strong oxidisers, 1,3-dichloro-5,5-dimethylhydantoin, uranium fluoride attack some plastics, rubber and coatings may generate electrostatic charges on flow or agitation due to low conductivity. Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic rings and strong oxidising agents. Aromatics can react exothermically with bases and with diazo compounds. For alkyl aromatics: The alkyl side chain of aromatic rings can undergo oxidation by several mechanisms. The most common and dominant one is the attack by oxidation at benzylic carbon as the intermediate formed is stabilised by resonance structure of the ring. Following reaction with oxygen and under the influence of sunlight, a hydroperoxide at the alpha-position to the aromatic ring, is the primary oxidation produc formed (provided a hydrogen atom is initially available at this position) - this product is often short-lived but may be stable dependent on the nature of the aromatic substitution; a secondary C-H bond is more easily attacked than a primary C-H bond willst a tertiary C-H bond is even more susceptible to attack by oxygen Monoalkylbenzenes may subsequently form monocarboxylic acids; alkyl naphthal

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US OSHA Permissible Exposure Levels (PELs) - Table Z1	sodium hydroxide	Sodium hydroxide	2 mg/m3	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	sodium hydroxide	Sodium hydroxide	Not Available	Not Available	2 mg/m3	TLV® Basis: URT, eye, & skin irr
US NIOSH Recommended Exposure Limits (RELs)	sodium hydroxide	Caustic soda, Lye, Soda lye, Sodium hydrate	Not Available	Not Available	2 mg/m3	Not Available
US ACGIH Threshold Limit Values (TLV)	diethylene glycol monobutyl ether	Diethylene glycol monobutyl ether	10 ppm	Not Available	Not Available	TLV® Basis: Hematologic, liver & kidney eff
US OSHA Permissible Exposure Levels (PELs) - Table Z1	xylene	Xylenes (o-, m-, p-isomers)	435 mg/m3 / 100 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	xylene	Xylene (all isomers)	100 ppm	150 ppm	Not Available	TLV® Basis: URT & eye irr; CNS impair; BEI
US OSHA Permissible Exposure Levels (PELs) - Table Z1	ethylbenzene	Ethyl benzene	435 mg/m3 / 100 ppm	Not Available	Not Available	Not Available
US ACGIH Threshold Limit Values (TLV)	ethylbenzene	Ethyl benzene	20 ppm	Not Available	Not Available	TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair; BEI
US NIOSH Recommended Exposure Limits (RELs)	ethylbenzene	Ethylbenzol, Phenylethane	435 mg/m3 / 100 ppm	545 mg/m3 / 125 ppm	Not Available	Not Available

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EMERGENCY LIMITS

EMERGENCY LIMITS					
Ingredient	Material name		TEEL-1	TEEL-2	TEEL-3
sodium hydroxide	Sodium hydroxide		Not Available	Not Available	Not Available
monoisobutanolamine	Isobutanol-2-amine		17 mg/m3	190 mg/m3	570 mg/m3
n-butyl methacrylate	Methyl butylacrylate, 2-; (Butyl methacrylate)		19 mg/m3	210 mg/m3	1,300 mg/m3
diethylene glycol monomethyl ether	Methoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monomethyl ether)		3.4 ppm	37 ppm	220 ppm
diethylene glycol monobutyl ether	Butoxyethoxy)ethanol, 2-(2-; (Diethylene glycol monobutyl ether)		30 ppm	33 ppm	200 ppm
xylene	Xylenes		Not Available	Not Available	Not Available
ethylene glycol phenyl ether	Phenoxyethanol, 2-; (Phenyl cellosolve)		1.5 ppm	16 ppm	97 ppm
ethylbenzene	Ethyl benzene		Not Available	Not Available	Not Available
sodium nitrite	Sodium nitrite		6.4 mg/m3	71 mg/m3	240 mg/m3
Ingredient	Original IDLH	Revised	IDLH		
Non-hazardous ingredient	Not Available	Not Avai	able		
sodium hydroxide	250 mg/m3	10 mg/m	3		
1,2-benzisothiazoline-3-one	Not Available	Not Avai	able		
monoisobutanolamine	Not Available	Not Available Not Available			
n-butyl methacrylate	Not Available	Not Avai	able		
water	Not Available	Not Avai	able		
dipropylene glycol mono-n-butyl ether - alpha isomer	Not Available	Not Available Not Available			
diethylene glycol monomethyl ether	Not Available	Not Avai	Not Available		
diethylene glycol monobutyl ether	Not Available	Not Avai	Not Available		
propylene glycol dibenzoate	Not Available	Not Available Not Available			
xylene	1,000 ppm	900 ppm			
ethylene glycol phenyl ether	Not Available	Not Avai	able		
ethylbenzene	2,000 ppm 800 [LEL] ppm				
sodium nitrite	Not Available Not Available				
C.I. Pigment Yellow 42	Not Available	Not Avai	able		

Exposure controls

	Engineering controls are used to remove a hazard or place a barrier between the worker and effective in protecting workers and will typically be independent of worker interactions to provide the basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the Enclosure and/or isolation of emission source which keeps a selected hazard "physically" aw "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if of the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. General exhaust is adequate under normal operating conditions. Local exhaust ventilation mexists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provid contaminants generated in the workplace possess varying "escape" velocities which, in turn	de this high level of protection. he risk. ay from the worker and ventilation that stra designed properly. The design of a ventilati ay be required in specific circumstances. If le adequate ventilation in warehouse or cla	ategically "adds" and on system must match f risk of overexposure osed storage areas. Air
	to effectively remove the contaminant.		n onoundan ig an roquirou
	Type of Contaminant:		Air Speed:
	solvent, vapours, degreasing etc., evaporating from tank (in still air).		
Appropriate engineering controls	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)		
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) 1-2		
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).		
	Within each range the appropriate value depends on:		
	Lower end of the range	Upper end of the range	
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents	
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity	
	3: Intermittent, low production.	3: High production, heavy use	
	4: Large hood or large air mass in motion	4: Small hood-local control only	
	Simple theory shows that air velocity falls rapidly with distance away from the opening of a sir of distance from the extraction point (in simple cases). Therefore the air speed at the extraction		

		distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.
 Chemical poggies. Chemical poggies. Contract lenses may pose a special hazard; acti contact lenses may abach and concentrate initiants. A written policy document, describing the wearing of lenses or restrictions on use, should be created and fissial postancial and lissial postancial in more and account of injury oparitors. Machine and fissial postancial in more and account of injury oparitors. Machine and fissial postancial in the intervolution of a should be created and fissial postancial in the intervolution of the dess of the fitsis of the operator of the intervolution of the intervolution	Personal protection	
Hands/feet protection Wear chemical protective gloves, e.g. PVC. Wear safety toolwear or safety gumboots, e.g. Rubber The selection of stubbe gloves does nothy 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 has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried throughly, Application of a non-perfumed molisturizer is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:	Eye and face protection	 Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH
Heads/feet protection • Wear safety footwear or safety gumboots, e.g. Rubber Hands/feet protection The selection of subtable gives does not ny depend on the material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for 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. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and died throughly. Application of a non-perfumed molisturics is recommended. Sutability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: • depands of lowes thread through time greater than 240 trinical residence of glove material. • disponse to disponse of glove material. • glove titiones and docting to expective type and explored to rusage. Important factors in the selection dass of 5 or higher (breakthrough time greater than 240 trinical residence of glove material. • the north protection dass. • Gloves this apprecision dass of 5 or higher (breakthrough time greater than 200 trinical sequence and the should be taken into account when considering gloves for long-term use. • Contaminated gloves should be replaced. • Sone glove phyter types and leasthould be taken into account when considering gloves for long-term	Skin protection	See Hand protection below
Other protection P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit. Eye wash unit. 	Hands/feet protection	 Wear safety footwear or safety gumboots, e.g. Rubber 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. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material, glove thickness and dstrettrity Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. Contaminated gloves should be replaced. For general applications, gloves with a thickness typically greater than 0.35 m
Other protection P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit. E	Body protection	See Other protection below
Thermal hazards Not Available	Other protection	 P.V.C. apron. Barrier cream. Skin cleansing cream.
	Thermal hazards	Not Available

Respiratory protection

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Text		
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	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available

Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

International control to produce adverse health effects or initiation of the respiratory trank (of desatted) by EC. Directives using anneal models), Headsche, faitupe, irredhess, porthyling and digester disturbances (nuese, los of appetie and biologin) are the not common symptoms of vyleen or the statted control measures to used in an ecceptance adverse. Note that have active adverse in the table been index adverse or status control measures to used in an ecceptance adverse. Note that an exceptance in the table been index adverses system adverses. Note the table of an end adverses system adverses system adverses system adverses system adverses system adverses. Note the table of adverse desatter and board amongs system adverses adverses adverses adverses adverses adverses to suggest that his naterial and encouse system adverses adversexedverses adverses adverses adverses adverses advers							
Ingestion The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroboration initial or human evidence. Skin Contract Skin Contract Skin contract is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry though wunch, lealth of the spaced to this material of the material and escuese evidentiation and damage is none persons. Charmeter is a sine evidence is suggest that this material can cause inflammation of the skin on contract in some persons. Open classified dation for dation of the exposed to this material of the material can cause evidentiation and damage is none persons. The material can cause evidentiation and damage is none persons. Three has been some concern that the instantial can cause are inflammation of the skin on contract in some persons. The material can cause evidentiation and damage is none concern that the instantial can cause evidentiation and damage is none concern that the instantial can cause evidentiation and damage is none concern that the instantial can cause evidentiation and damage is none concern that the instantial can cause evidentiation and damage is none concern that the instantial can cause evidentiation and damage is none concern that the instantial can cause evidentiation and the evidence. Revertify WB(HG)-Stetcy Yalow FS25t2 TOXICITY IRRITATION Not Available ToXICITY IRRITATION Non-hazardous ingredint TOXICITY IRRITATION IRRITATION IRRITATION 1	Inhaled	Nevertheless, good hygiene practice requires that expose Headache, fatigue, tiredness, irritability and digestive diste overexposure. Injury to the heart, liver, kidneys and nervou	ure be kept to a minim urbances (nausea, los	um and that suitable control r s of appetite and bloating) ar	measures be used	in an occupational setting.	
Skin Contact Through wounds, lesions or abrasions. Skin Contact There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or initiated skin should not be exposed to this material. Environment to the skin prior to the use of the material can cause inflammation of the skin on contact in some persons. File This material can cause eye initiation and damage in some persons. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. There has been some concern that this material can cause and or mutations but there is no tenough data to make an assessment. Women exposed to vijene in the first 3 months of perganary showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to vijene in the first 3 months of perganary showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to vijene in the first 3 months of perganary showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to vijene in the first 3 months of perganary showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to vijene in the first 3 months of perganary showed a slightly increased risk of miscarriage and birth defects. Evertifie WB (HG)-Safety yee has demonstrated lack of genetic toxicity. TOXICITY IRRITATION Non-hazardous ingredient TOXICITY IRRITATION Not Available <td< th=""><th>Ingestion</th><th>The material has NOT been classified by EC Directives of</th><th></th><th></th><th></th><th></th></td<>	Ingestion	The material has NOT been classified by EC Directives of					
Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Wrome expected to xylene has the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity. Evertife WB (HG)-Safety Yellow F52163 TOXICITY IRRITATION Non-hazardous ingredient Sodium hydroxide TOXICITY IRRITATION Nor Available Nor Available TOXICITY IRRITATION Oral (rabbit) LD50: 325 mg/kg ¹¹ Eye (rabbit): 0.05 mg/24h SEVERE Eye (rabbit): 1mg/24h SEVERE Eye (rabbit): 1mg/24h SEVERE I.2-benzisothiazoline-3-one TOXICITY IRRITATION Mononisobutanolamine TOXICITY IRRITATION Mononis	Skin Contact	through wounds, lesions or abrasions. There is some evidence to suggest that this material can Open cuts, abraded or irritated skin should not be expose Entry into the blood-stream, through, for example, cuts, ab	through wounds, lesions or abrasions. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use				
Chrone Toxicity IRRITATION Everifie WB (HG)-Safety Yellow F522 Toxicity Interference Interference Non-hazardous ingredient Toxicity IRRITATION Interference Sodium hydroxide Toxicity Interference Interference 12-benzisothiazolina-3-ong Toxicity Interference In	Eye	This material can cause eye irritation and damage in som	ne persons.				
Evention of (roly-state) Not Available Non-hazardous ingredient TOXICITY Not Available IRRITATION IRRITATION Not Available Incriticity Incrity Incriticity Incrity	Chronic	There has been some concern that this material can caus Women exposed to xylene in the first 3 months of pregna	e cancer or mutations incy showed a slightly	but there is not enough data			
Evention of (roly-state) Not Available Non-hazardous ingredient TOXICITY Not Available IRRITATION IRRITATION Not Available Incriticity Incrity Incriticity Incrity	Evertile WP (HO) Selety	тохісіту		IRRITATION			
Non-hazardous ingredient Not Available Not Available Not Available Image: Not Available Not Available Image: Not Available Not Available Image: Not Available Image: Not Available		Not Available		Not Available			
sodium hydroxide Oral (rabbit) LD50: 325 mg/kg ^[1] Eye (rabbit): 0.05 mg/24h SEVERE Eye (rabbit): 1 mg/24h SEVERE Eye (rabbit): 1 mg/30s rinsed-SEVERE Image: Construction of the sector of the s	Non-hazardous ingredient						
sodium hydroxide Eye (rabbit):1 mg/24h SEVERE Eye (rabbit):1 mg/30s rinsed-SEVERE Skin (rabbit): 500 mg/24h SEVERE Skin (rabbit): 500 mg/24h SEVERE Oral (rat) LD50: 670 mg/kg ^[2] Not Available International (rabbit) LD50: >2000 mg/kg ^[1]		ΤΟΧΙΟΙΤΥ	IRR	ITATION			
sodium hydroxide Eye (rabbit):1 mg/24h SEVERE Eye (rabbit):1 mg/30s rinsed-SEVERE Skin (rabbit): 500 mg/24h SEVERE Skin (rabbit): 500 mg/24h SEVERE Oral (rat) LD50: 670 mg/kg ^[2] Not Available International (rabbit) LD50: >2000 mg/kg ^[1]		Oral (rabbit) LD50: 325 mg/kg ^[1] Eye (rabbit): 0.05 mg/24h SEVERE			RE		
Image: Severable in the several	sodium hydroxide			. , .			
Image: sector of the sector				VERE	RE		
1,2-benzisothiazoline-3-one Oral (rat) LD50: 670 mg/kg ^[2] Not Available IRRITATION Dermal (rabbit) LD50: >2000 mg/kg ^[1] Not Available			Skin (rabbit): 500 mg/24h SEVERE		RE		
Oral (rat) LD50: 670 mg/kg ^[2] Not Available TOXICITY IRRITATION Dermal (rabbit) LD50: >2000 mg/kg ^[1] Not Available		TOXICITY			IRRITATION		
monoisobutanolamine Dermal (rabbit) LD50: >2000 mg/kg ^[1] Not Available	1,2-benzisothiazoline-3-one			Not Available			
monoisobutanolamine Dermal (rabbit) LD50: >2000 mg/kg ^[1] Not Available							
						-	
Oral (rat) LD50: 2900 mg/kg ^[2]	monoisobutanolamine				Not Availa	able	
		Oral (rat) LD50: 2900 mg/kg ^[2]					

Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances
	E The material may cause severe 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. Repeated exposures may produce severe ulceration.
1,2-BENZISOTHIAZOLINE-3-ON	Acute toxicity data show that 1,2-benzisothiazoline-3-one (BIT) is moderately toxic by the oral and dermal routes but that this chemical is a severe eye irritant. Irritation to the skin from acute data show only mild skin irritation, but repeated dermal application indicated a more significant skin irritation response. The neurotoxicity observed in the rat acute oral toxicity study (piloerection and upward curvature of the spine at 300 mg/kg and above; decreased activity, prostration, decreased abdominal muscle tone, reduced righting reflex, and decreased rate and depth of breathing at 900 mg/kg) and the acute dermal toxicity study (upward curvature of the spine at dose of 2000 mg/kg) were felt to be at exposures in excess of those expected from the use pattern of this pesticide and that such effects would not be observed at estimated exposure doses.
MONOISOBUTANOLAMIN	E TRIS AMINO and its surrogate chemicals have very little, if any, toxicity. They are mildly irritating to eyes at moderate concentrations, and do not cause allergic skin reactions. Ingestion of relatively high dosages can cause liver changes.
N-BUTYL METHACRYLAT	 Where no "official" classification for acrylates and methacrylates exists, there has been cautious attempts to create classifications in the absence of contrary evidence. For example Monalkyl or monoarylesters of acrylic acids should be classified as R36/37/38 and R51/53 Monoalkyl or monoarylesters of methacrylic acid should be classified as R36/37/38 For isobutyl methacrylates (i-BMA) and n-butyl methacrylates (n-BMA): These have low levels of toxicity orally, through skin contact or by inhalation. The irritate the skin and eyes. They have not been shown to cause genetic damage or cancer, and there is little concern about them causing developmental toxicity. Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety (CH2=CHCOO or CH2=C(CH3)COO) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing. This position has now been revised and acrylates and methacrylates are no longer <i>de facto</i> carcinogens.
DIPROPYLENE GLYCC MONO-N-BUTYL ETHER ALPHA ISOME	- Testing of a wide variety of propylene glycol ethers Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are
DIETHYLENE GLYCO MONOMETHYL ETHE	I he material may broduce moderate eve irritation leading to inflammation. Repeated or brolonded exposure to irritants may broduce conjunctivitis
PROPYLENE GLYCC DIBENZOAT	
XYLEN	E Reproductive effector in rats
ETHYLENE GLYCOL PHENY ETHE	5
ETHYLBENZEN	 Ethylbenzene is readily absorbed when inhaled, swallowed or in contact with the skin. It is distributed throughout the body, and passed out through urine. may irritate the skin, eyes and may cause hearing loss if exposed to high doses. NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA. WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans. Liver changes, utheral tract, effects on fertility, foetotoxicity, specific developmental abnormalities (musculoskeletal system) recorded.
SODIUM NITRIT	The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Tumorigenic - Carcinogenic by RTECS criteria.
SODIUM HYDROXIDE DIETHYLENE GLYCC MONOBUTYL ETHER & XYLEN & ETHYLENE GLYCOL PHENY ETHER & ETHYLBENZEN	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
SODIUM HYDROXIDE N-BUTYL METHACRYLATE C.I. PIGMENT YELLOW 4	as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the
1,2-BENZISOTHIAZOLINE-3-ON & N-BUTYL METHACRYLATE PROPYLENE GLYCC DIBENZOAT	 a 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-meriated (T lymphocytes) immune reaction of the delayed type.
WATER & C.I. PIGMEN YELLOW 4	I No significant acute toxicological data identified in literature search
DIETHYLENE GLYCC MONOMETHYL ETHER DIETHYLENE GLYCC MONOBUTYL ETHE	8 glycol hexyl ether (DGHE) and their acetates. Studies show that they can cause kidney and liver damage, skin and eye irritation as well as blood changes but do not cause damage to the reproductive, genetic and developmental abnormalities, sensitisation or respiratory systems. However, DGEE is reported

XYLENE & ETHYLENE GLYC PHENYL ETHEF ETHYLBENZE	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.				
XYLENE & C.I. PIGME YELLOW	NOT classifiable as to its carcinogenicity to humans				
Acute Toxicity	Carcinogenicity				
Skin Irritation/Corrosion	O Reproductivity				
Serious Eye Damage/Irritation	STOT - Single Exposure				
Respiratory or Skin sensitisation	STOT - Repeated Exposure				
Mutagenicity	S Aspiration Hazard				
	Legend: → - Data available but does not fill the criteria for classification → - Data available to make classification				

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
sodium hydroxide	LC50	96	Fish	4.16158mg/L	3
sodium hydroxide	EC50	96	Algae or other aquatic plants	1034.10043mg/L	3
sodium hydroxide	EC50	384	Crustacea	27901.643mg/L	3
sodium hydroxide	NOEC	96	Fish	56mg/L	4
1,2-benzisothiazoline-3-one	LC50	96	Fish	1.6mg/L	4
1,2-benzisothiazoline-3-one	EC50	48	Crustacea	0.062mg/L	4
1,2-benzisothiazoline-3-one	EC50	48	Crustacea	4.4mg/L	4
monoisobutanolamine	LC50	96	Fish	=100mg/L	1
monoisobutanolamine	EC50	48	Crustacea	=193mg/L	1
monoisobutanolamine	EC50	96	Algae or other aquatic plants	52.872mg/L	3
monoisobutanolamine	EC50	24	Crustacea	=65mg/L	1
n-butyl methacrylate	LC50	96	Fish	5.478mg/L	3
n-butyl methacrylate	EC50	48	Crustacea	32mg/L	1
n-butyl methacrylate	EC50	96	Algae or other aquatic plants	57mg/L	1
n-butyl methacrylate	EC50	504	Crustacea	6.59mg/L	2
n-butyl methacrylate	NOEC	336	Fish	0.78mg/L	2
dipropylene glycol mono-n-butyl ether - alpha isomer	LC50	96	Fish	139.478mg/L	3
dipropylene glycol mono-n-butyl ether - alpha isomer	EC50	96	Algae or other aquatic plants	556.359mg/L	3
dipropylene glycol mono-n-butyl ether - alpha isomer	EC50	384	Crustacea	32.795mg/L	3
dipropylene glycol mono-n-butyl ether - alpha isomer	NOEC	96	Fish	=180mg/L	1
diethylene glycol monomethyl ether	LC50	96	Fish	4276.836mg/L	3
diethylene glycol monomethyl ether	EC50	48	Crustacea	>500mg/L	1
diethylene glycol monomethyl ether	EC50	72	Algae or other aquatic plants	>500mg/L	1
diethylene glycol monomethyl ether	EC0	48	Crustacea	=500mg/L	1
diethylene glycol monobutyl ether	LC50	96	Fish	488.016mg/L	3
diethylene glycol monobutyl ether	EC50	48	Crustacea	>100mg/L	1
diethylene glycol monobutyl ether	EC50	96	Algae or other aquatic plants	>100mg/L	1
diethylene glycol monobutyl ether	EC50	384	Crustacea	112.547mg/L	3
diethylene glycol monobutyl ether	NOEC	96	Algae or other aquatic plants	>=100mg/L	1

propylene glycol dibenzoate	LC50	96	Fish	4.927mg/L	3
propylene glycol dibenzoate	EC50	96	Algae or other aquatic plants	0.418mg/L	3
xylene	LC50	96	Fish	2.6mg/L	2
xylene	EC50	48	Crustacea	>3.4mg/L	2
xylene	EC50	72	Algae or other aquatic plants	4.6mg/L	2
xylene	EC50	24	Crustacea	0.711mg/L	4
xylene	NOEC	73	Algae or other aquatic plants	0.44mg/L	2
ethylene glycol phenyl ether	LC50	96	Fish	106.514mg/L	3
ethylene glycol phenyl ether	EC50	48	Crustacea	>500mg/L	1
ethylene glycol phenyl ether	EC50	96	Algae or other aquatic plants	429.444mg/L	3
ethylene glycol phenyl ether	EC50	384	Crustacea	25.027mg/L	3
ethylene glycol phenyl ether	NOEC	504	Crustacea	9.43mg/L	2
ethylbenzene	LC50	96	Fish	0.0043mg/L	4
ethylbenzene	EC50	48	Crustacea	1.184mg/L	4
ethylbenzene	EC50	96	Algae or other aquatic plants	3.6mg/L	2
ethylbenzene	EC50	96	Crustacea	=0.49mg/L	1
ethylbenzene	NOEC	168	Crustacea	0.96mg/L	5
sodium nitrite	LC50	96	Fish	0.048mg/L	4
sodium nitrite	EC50	48	Crustacea	ca.12.5100mg/L	1
sodium nitrite	EC50	96	Algae or other aquatic plants	12.537mg/L	3
sodium nitrite	EC50	216	Crustacea	1.8mg/L	4
sodium nitrite	NOEC	2	Fish	0.02mg/L	4
C.I. Pigment Yellow 42	LC50	96	Fish	0.05mg/L	2
C.I. Pigment Yellow 42	EC50	72	Algae or other aquatic plants	18mg/L	2
C.I. Pigment Yellow 42	EC50	504	Crustacea	4.49mg/L	2
C.I. Pigment Yellow 42	NOEC	504	Fish	0.52mg/L	2

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 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

For Aromatic Substances Series:

Environmental Fate: Large, molecularly complex polycyclic aromatic hydrocarbons, or PAHs, are persistent in the environment longer than smaller PAHs.

Atmospheric Fate: PAHs are 'semi-volatile substances' which can move between the atmosphere and the Earth's surface in repeated, temperature-driven cycles of deposition and volatilization. Terrestrial Fate: BTEX compounds have the potential to move through soil and contaminate ground water, and their vapors are highly flammable and explosive.

Ecotoxicity - Within an aromatic series, acute toxicity increases with increasing alkyl substitution on the aromatic nucleus. The order of most toxic to least in a study using grass shrimp and brown shrimp was dimethylnaphthalenes > methylnaphthalenes > naphthalenes. Anthrcene is a phototoxic PAH. UV light greatly increases the toxicity of anthracene to bluegill sunfish. Biological resources in strong sunlight are at more risk than those that are not. PAHs in general are more frequently associated with chronic risks.

For Xylenes:

log Koc : 2.05-3.08; Koc : 25.4-204; Half-life (hr) air : 0.24-42; Half-life (hr) H2O surface water : 24-672; Half-life (hr) H2O ground : 336-8640; Half-life (hr) soil : 52-672; Henry's Pa m3 /mol : 637-879; Henry's atm m3 /mol - 7.68E-03; BOD 5 if unstated - 1.4,1%; COD - 2.56,13% ThOD - 3.125 : BCF : 23; log BCF : 1.17-2.41.

Environmental Fate: Most xylenes released to the environment will occur in the atmosphere and volatilisation is the dominant environmental fate process. Soil - Xylenes are expected to have moderate mobility in soil evaporating rapidly from soil surfaces. The extent of the degradation is expected to depend on its concentration, residence time in the soil, the nature of the soil, and whether resident microbial populations have been acclimated. Xylene can remain below the soil surface for several days and may travel through the soil profile and enter groundwater. Soil and water microbes may travel through the soil profile and enter groundwater. Soil and water motify or groundwater is not clear how long xylene remains trapped deep underground in soil or groundwater, but it may be months or years.

Atmospheric Fate: Xylene evaporates quickly into the air from surface soil and water and can remain in the air for several days until it is broken down by sunlight into other less harmful chemicals. In the ambient atmosphere, xylenes are expected to exist solely in the vapour phase. Xylenes are degraded in the atmosphere with an estimated atmospheric lifetime of about 0.5 to 2 days. Xylene may contribute to photochemical smog formation. p-Xylene has a moderately high photochemical reactivity under smog conditions, higher than the other xylene isomers. The photooxidation of p-xylene results in the production of carbon monoxide, formaldehyde, glyoxal, methylglyoxal, 3-methylbenzylnitrate, m-tolualdehyde, 4-nitro-3-xylene, 5-nitro-3-xylene, 2,6-dimethylphenol, 2,4-dimethylphenol, 6-nitro-2,4-dimethylphenol, 2,6-dimethylphenol, and 4-nitro-2,6-dimethylphenol.

Aquatic Fate: p-xylene may adsorb to suspended solids and sediment in water and is expected to volatilise from water surfaces. Estimated volatilisation half-lives for a model river and model lake are 3 hours and 4 days, respectively. Measurements taken from goldfish, eels and clams indicate that bioconcentration in aquatic organisms is low. Photo-oxidation in the presence of humic acids may play an important role in the abiotic degradation of p-xylene. p-Xylene is biodegradable and has been observed to degrade in pond water however; it is unclear if it degrades in surface waters. p-Xylene has been observed to degrade in anaerobic and aerobic groundwater; however, it is known to persist for many years in groundwater, at least at sites where the concentration might have been quite high. Ecotoxicity: Xylenes are slightly toxic to fathead minnow, rainbow trout and bluegill and not acutely toxic to water fleas. For Photobacterium phosphoreum EC50 (24 h): 0.0084 mg/L. and Gammarus lacustris LC50 (48 h): 0.6 mg/L.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium hydroxide	LOW	LOW
monoisobutanolamine	LOW	LOW
n-butyl methacrylate	LOW	LOW
water	LOW	LOW
dipropylene glycol mono-n-butyl ether - alpha isomer	нісн	HIGH
diethylene glycol monomethyl ether	LOW	LOW

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Everlife WB (HG)-Safety Yellow F52163

diethylene glycol monobutyl ether	LOW	LOW
propylene glycol dibenzoate	LOW	LOW
xylene	HIGH (Half-life = 360 days)	LOW (Half-life = 1.83 days)
ethylene glycol phenyl ether	LOW	LOW
ethylbenzene	HIGH (Half-life = 228 days)	LOW (Half-life = 3.57 days)
sodium nitrite	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
sodium hydroxide	LOW (LogKOW = -3.8796)
monoisobutanolamine	LOW (BCF = 330)
n-butyl methacrylate	LOW (BCF = 114)
water	LOW (LogKOW = -1.38)
dipropylene glycol mono-n-butyl ether - alpha isomer	LOW (LogKOW = 1.1274)
diethylene glycol monomethyl ether	LOW (BCF = 0.18)
diethylene glycol monobutyl ether	LOW (BCF = 0.46)
propylene glycol dibenzoate	LOW (LogKOW = 3.7326)
xylene	MEDIUM (BCF = 740)
ethylene glycol phenyl ether	LOW (LogKOW = 1.16)
ethylbenzene	LOW (BCF = 79.43)
sodium nitrite	LOW (LogKOW = 0.0564)

Mobility in soil

Ingredient	Mobility
sodium hydroxide	LOW (KOC = 14.3)
monoisobutanolamine	MEDIUM (KOC = 2.196)
n-butyl methacrylate	LOW (KOC = 63.6)
water	LOW (KOC = 14.3)
dipropylene glycol mono-n-butyl ether - alpha isomer	LOW (KOC = 10)
diethylene glycol monomethyl ether	HIGH (KOC = 1)
diethylene glycol monobutyl ether	LOW (KOC = 10)
propylene glycol dibenzoate	LOW (KOC = 2573)
ethylene glycol phenyl ether	LOW (KOC = 12.12)
ethylbenzene	LOW (KOC = 517.8)
sodium nitrite	LOW (KOC = 23.74)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some
	areas, certain wastes must be tracked.
	A Hierarchy of Controls seems to be common - the user should investigate:
	▶ Reduction
	▶ Reuse
	Recycling
	Treeyoung Toposal (if all else fails)
	This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be
	possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type.
Product / Packaging	Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.
disposal	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.
	Where in doubt contact the responsible authority.
	► 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.
	Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after a constraint)
	admixture with suitable combustible material).
	 Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
	9

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant NO

Land transport (DOT): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

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

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

SECTION 15 REGULATORY INFORMATION

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

NON-HAZARDOUS INGREDIENT (NOT AVAIL.) IS FOUND ON THE FOLLOWING REGULATORY LISTS Not Applicable

SODIUM HYDROXIDE(1310-73-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Alaska Limits for Air Contaminants	03 - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
US - California Permissible Exposure Limits for Chemical Contaminants	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
US - Hawaii Air Contaminant Limits	Contaminants
US - Idaho - Limits for Air Contaminants	US - Washington Permissible exposure limits of air contaminants
US - Massachusetts - Right To Know Listed Chemicals	US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values
US - Michigan Exposure Limits for Air Contaminants	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
US - Minnesota Permissible Exposure Limits (PELs)	US ACGIH Threshold Limit Values (TLV)
US - Oregon Permissible Exposure Limits (Z-1)	US CWA (Clean Water Act) - List of Hazardous Substances
US - Pennsylvania - Hazardous Substance List	US NIOSH Recommended Exposure Limits (RELs)
US - Rhode Island Hazardous Substance List	US OSHA Permissible Exposure Levels (PELs) - Table Z1

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

US Clean Air Act - Hazardous Air Pollutants

1,2-BENZISOTHIAZOLINE-3-ONE(2634-33-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

MONOISOBUTANOLAMINE(124-68-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory US - Pennsylvania - Hazardous Substance List

N-BUTYL METHACRYLATE(97-88-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - Massachusetts - Right To Know Listed Chemicals	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Pennsylvania - Hazardous Substance List	
WATER(7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS	
US - Pennsylvania - Hazardous Substance List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US - Pennsylvania - Hazardous Substance List

DIPROPYLENE GLYCOL MONO-N-BUTYL ETHER - ALPHA ISOMER(29911-28-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)	US Clean Air Act - Hazardous Air Pollutants
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs	US EPCRA Section 313 Chemical List
(CRELs)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Pennsylvania - Hazardous Substance List	

DIETHYLENE GLYCOL MONOMETHYL ETHER(111-77-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

US - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)	US Clean Air Act - Hazardous Air Pollutants
US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs	US EPCRA Section 313 Chemical List
(CRELs)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US - Massachusetts - Right To Know Listed Chemicals	

US - Pennsylvania - Hazardous Substance List

DIETHYLENE GLYCOL MONOBUTYL ETHER(112-34-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US California OEHHA/ARB Acute Reference Exposure Levels and Target Organs (RELs)
- US California OEHHA/ARB Chronic Reference Exposure Levels and Target Organs US EPCRA Section 313 Chemical List (CRELs) US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

US - Pennsylvania - Hazardous Substance List

US ACGIH Threshold Limit Values (TLV)

PROPYLENE GLYCOL DIBENZOATE(19224-26-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

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

XYLENE(1330-20-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminar
Monographs	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
JS - Alaska Limits for Air Contaminants	Contaminants
IS - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)	US - Washington Permissible exposure limits of air contaminants
IS - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs	US ACGIH Threshold Limit Values (TLV)
CRELs) IS - California Permissible Exposure Limits for Chemical Contaminants	US ACGIH Threshold Limit Values (TLV) - Carcinogens
IS - Hawaii Air Contaminant Limits	US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
IS - Idaho - Limits for Air Contaminants	US Clean Air Act - Hazardous Air Pollutants
	US CWA (Clean Water Act) - List of Hazardous Substances
JS - Massachusetts - Right To Know Listed Chemicals JS - Michigan Exposure Limits for Air Contaminants	US EPA Carcinogens Listing
JS - Minnesota Permissible Exposure Limits (PELs)	US EPCRA Section 313 Chemical List
JS - Oregon Permissible Exposure Limits (Z-1)	US OSHA Permissible Exposure Levels (PELs) - Table Z1
JS - Pennsylvania - Hazardous Substance List	US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
JS - Rhode Island Hazardous Substance List	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
JS - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	
THYLENE GLYCOL PHENYL ETHER(122-99-6) IS FOUND ON THE FOLLOWING REGU	LATORY LISTS
nternational Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US Clean Air Act - Hazardous Air Pollutants
Vonographs	US EPCRA Section 313 Chemical List
JS - California OEHHA/ARB - Acute Reference Exposure Levels and Target Organs (RELs)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
JS - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs	, , , , , , , , , , , , , , , , , , ,
(CRELs)	
US - Pennsylvania - Hazardous Substance List	
THYLBENZENE(100-41-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS	
nternational Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air
Vonographs	Contaminants
JS - Alaska Limits for Air Contaminants	US - Washington Permissible exposure limits of air contaminants
JS - California - Proposition 65 - Priority List for the Development of MADLs for Chemicals	US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values
Causing Reproductive Toxicity	US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
JS - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs	US ACGIH Threshold Limit Values (TLV)
CRELs)	US ACGIH Threshold Limit Values (TLV) - Carcinogens
JS - California Permissible Exposure Limits for Chemical Contaminants	US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
JS - California Proposition 65 - Carcinogens	US Clean Air Act - Hazardous Air Pollutants
JS - California Proposition 65 - No Significant Risk Levels (NSRLs) for Carcinogens	US CWA (Clean Water Act) - List of Hazardous Substances
JS - Hawaii Air Contaminant Limits	US CWA (Clean Water Act) - Priority Pollutants
JS - Idaho - Limits for Air Contaminants	US CWA (Clean Water Act) - Toxic Pollutants
JS - Massachusetts - Right To Know Listed Chemicals	US EPA Carcinogens Listing
JS - Michigan Exposure Limits for Air Contaminants	US EPCRA Section 313 Chemical List
JS - Minnesota Permissible Exposure Limits (PELs)	US NIOSH Recommended Exposure Limits (RELs)
JS - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL):	US OSHA Permissible Exposure Levels (PELs) - Table Z1
Carcinogens	US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
JS - Oregon Permissible Exposure Limits (Z-1)	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
JS - Pennsylvania - Hazardous Substance List	
JS - Rhode Island Hazardous Substance List	
JS - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	
JS - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	
ODIUM NITRITE(7632-00-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS	
nternational Agency for Research on Cancer (IARC) - Agents Classified by the IARC	US CWA (Clean Water Act) - List of Hazardous Substances
Monographs	US EPCRA Section 313 Chemical List
JS - Massachusetts - Right To Know Listed Chemicals	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
JS - Pennsylvania - Hazardous Substance List	· · · · · · · · · · · · · · · · · · ·
	USTS
JS - Alaska Limits for Air Contaminants	US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
US Deprevilvenia Hazerdave Substance List	

US - Alaska Limits for Air Contaminants US - Pennsylvania - Hazardous Substance List

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES

Immediate (acute) health hazard	No
Delayed (chronic) health hazard	Yes
Fire hazard	No
Pressure hazard	No
Reactivity hazard	No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

Name	Reportable Quantity in Pounds (Ib)	Reportable Quantity in kg
Sodium hydroxide	1000	454
Xylene (mixed)	100	45.4
Ethylbenzene	1000	454
Sodium nitrite	100	45.4

State Regulations

US. CALIFORNIA PROPOSITION 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm

US - CALIFORNIA PREPOSITION 65 - CARCINOGENS & REPRODUCTIVE TOXICITY (CRT): LISTED SUBSTANCE Ethylbenzene Listed

National Inventory	Status
Australia - AICS	Y
Canada - DSL	N (propylene glycol dibenzoate)
Canada - NDSL	N (diethylene glycol monomethyl ether; monoisobutanolamine; 1,2-benzisothiazoline-3-one; dipropylene glycol mono-n-butyl ether - alpha isomer; xylene; diethylene glycol monobutyl ether; ethylbenzene; water; n-butyl methacrylate; ethylene glycol phenyl ether; sodium nitrite; sodium hydroxide; C.I. Pigment Yellow 42)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (dipropylene glycol mono-n-butyl ether - alpha isomer; water)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

CONTACT POINT

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

Other information

Ingredients with multiple cas numbers

Name	CAS No
sodium hydroxide	1310-73-2, 12200-64-5
propylene glycol dibenzoate	19224-26-1, 105928-08-3
ethylene glycol phenyl ether	122-99-6, 37220-49-8, 134367-25-2, 18249-17-7, 200260-63-5, 79586-53-1, 9004-78-8, 56257-90-0, 1219804-65-5
C.I. Pigment Yellow 42	51274-00-1, 12259-21-1, 105478-30-6, 53028-10-7, 1342-51-4, 12000-32-7, 50641-37-7, 51109-85-4, 99241-66-4, 131462-81-2, 147625-38-5, 12001-03-5, 185464-57-7, 182761-12-2, 94809-98-0, 934248-40-5

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. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

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

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