SAFETY DATA SHEET

(in accordance with The Hazard Communication Standard (HCS) (29 CFR 1910.1200))

Industrial Solutions Armor AR1-

Section 1: Identification.

Product identifier used on the label and Other means of identification.
Product Name: Industrial Solutions Armor AR1

Specific end use(s).
Protective coating for truck beds.

Uses advised against:
For professional use only.

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

Company:	**IGL Coatings**
Address:	No. 7, Jalan Majistret U1/26, Hicom-Glenmarie Industrial Park, Seksyen U1
City:	40150 - Shah Alam
Province:	Selangor
Telephone:	+0355690980
E-mail:	regulations@iglcoatings.com
Web:	https://iglcoatings.com/

Emergency phone number: (Monday-Friday; 08:00-18:00)

Section 2: Hazard(s) Identification.

Classification of the chemical in accordance with paragraph (d) of §1910.1200
In accordance with The Hazard Communication Standard (HCS) (29 CFR 1910.1200):
Carcinogen, Category 1B : May cause cancer.
Flammable liquid, Category 2 : Highly flammable liquid and vapor.
Mutagen, Category 1B : May cause genetic defects.

Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200.

Symbol(s):

Signal Word:
Danger

Hazard statement(s):

H225	Highly flammable liquid and vapor.
H340	May cause genetic defects.
H350	May cause cancer.

Precautionary statement(s):

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P370+P378	In case of fire: Use carbon dioxide, dry chemical powder, water spray, alcohol resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container according to local, state and federal regulations.

-Continued on next page.-

Other hazards.
In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

Section 3: Composition/Information on Ingredients.

Substances.
Not applicable.

Mixtures.
Chemical name and concentration ranges of all ingredients that are classified as health hazards in accordance with paragraph (d) of §1910.1200 and that are present above their cut-off/concentration limits or ingredients that are below their cut-off/concentration limits and present a health risk:

Identifiers	Name	Concentrate	(*)Classification	
			Classification	specific concentration limit
CAS No: Proprietary	Proprietary	25 – 50 %	-	-
CAS No: 540-88-5 EC No: 208-760-7 Index No: 607-026-00-7	[1] tert-butyl acetate (Mixture of isomers)	25 – 50 %	Flam. Liq. 2, H225	-
CAS No: 123-86-4 EC No: 204-658-1 Index No: 607-025-00-1	[1] n-butyl acetate	2.5 – 20 %	Flam. Liq. 3, H226 - STOT SE 3, H336	-
CAS No: 112945-52-5 EC No: 601-216-3	Amorphous Silica	2.5 – 10 %	-	-
CAS No: Proprietary	Proprietary	2.5 – 10 %	-	-
CAS No: 64742-95-6 EC No: 265-199-0 Index No: 649-356-00-4	Low boiling point naphtha - unspecified,Solvent naphtha (petroleum), light arom.,[A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C8 through C10 and boiling in the range of approximately 135°C to 210°C (275°F to 410°F).]	0.1 – 10 %	Asp. Tox. 1, H304 - Carc. 1B, H350 - Muta. 1B, H340	-
CAS No: 1330-20-7 EC No: 215-535-7 Index No: 601-022-00-9	[1] xylene (Mixture of isomers)	1 – 10 %	Acute Tox. 4 *, H312 - Acute Tox. 4 *, H332 - Flam. Liq. 3, H226 - Skin Irrit. 2, H315	-
CAS No: 113669-95-7 EC No: 601-271-3	Fatty acids, castor-oil, caustic-oxidized, distn. residues, esters with 1,3-butanediol	0 – 2.5 %	-	-

-Continued on next page.-

CAS No: 100-41-4 EC No: 202-849-4 Index No: 601-023-00-4	[1] ethylbenzene	0 - 1 %	Acute Tox. 4 *, H332 - Asp. Tox. 1, H304 - Flam. Liq. 2, H225 - STOT RE 2, H373(órganos de audición)	-
CAS No: 108-65-6 EC No: 203-603-9 Index No: 607-195-00-7	[1] 2-methoxy-1-methylethyl acetate	0 - 20 %	Flam. Liq. 3, H226 - STOT SE 3, H336	-
CAS No: 80-62-6 EC No: 201-297-1 Index No: 607-035-00-6	[1] methyl 2-methylprop-2-enoate,methyl 2-methylpropenoate,methyl methacrylate	0 – 0.1 %	Flam. Liq. 2, H225 - STOT SE 3, H335 - Skin Irrit. 2, H315 - Skin Sens. 1, H317	-
CAS No: 109-16-0 EC No: 203-652-6	2,2'-ethylenedioxydiethyl dimethacrylate	0 – 1 %	Skin Sens. 1B, H317	-
CAS No: 7664-38-2 EC No: 231-633-2 Index No: 015-011-00-6	[1] phosphoric acid, orthophosphoric acid	0 – 10 %	Skin Corr. 1B, H314	Skin Corr. 1B, H314: C ≥ 25 % Skin Irrit. 2, H315: 10 % ≤ C < 25 % Eye Irrit. 2A, H319: 10 % ≤ C < 25 %
CAS No: 77-58-7 EC No: 201-039-8 Index No: 050-030-00-3	[1] dibutyltin dilaurate	0 – 0.1 %	Muta. 2, H341 - Repr. 1B, H360 - STOT RE 1, H372	-
EC No: Proprietary	Proprietary	0 – 10 %	Eye Irrit. 2A, H319	-
CAS No: 398475-96-2	Alkylolammonium salt	0 – 0.25 %	Aquatic Acute 1, H400 - Aquatic Chronic 1, H410 - Eye Irrit. 2A, H319 - Skin Irrit. 2, H315	-

(*)The complete text of the Hazard statement(s) is given in section 16 of this Safety Data Sheet.
** Minimum classification.*
*** Route of exposure cannot be excluded.*
**** Hazard statements for reproductive toxicity, the general hazard statement can be replaced by the hazard statement indicating only the property of concern.*
***** Correct classification for physical hazards could not be established.*
[1] Substance with a workplace exposure limit (see section 8.1).

-Continued on next page.-

Section 4: First-Aid Measures.

Description of first aid measures.
Delayed effects may occur after the exposure to the product.

Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.
Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

Most important symptoms and effects, both acute and delayed.
Long-term chronic exposure may result in injury to certain organs or tissues.

Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Keep the person comfortable. Turn him/her over to the left side and stay there while waiting for medical care.

Section 5: Fire-Fighting Measures.

The product is Highly inflammable, it can cause or considerably worsen a fire, the necessary prevention measures should be taken and risks avoided. In case of fire, the following measures are recommended:

Extinguishing media.
Suitable extinguishing media:
Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:
Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

Special hazards arising from the mixture.
Special risks.
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

During a fire and depending on its magnitude the following may occur:
- Flammable vapors or gases.

Advice for firefighters.
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Follow the instructions given in the emergency or fire evacuation plan or plans if available.

Fire protection equipment.
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots. During extinction and depending on the magnitude and proximity to the fire, additional protective equipment such as chemical protection gloves, heat-reflecting suits or gas-tight suits may be required.

-Continued on next page.-

Section 6: Accidental Release Measures.

Personal precautions, protective equipment, and emergency procedures.
Eliminate possible ignition points and ventilate the area. No smoking. Avoid breathing fumes. For exposure control and individual protection measures, see section 8.

Environmental precautions: Product not classified as hazardous for the environment, avoid spillage as much as possible.

Methods and materials for containment and cleaning up.
Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, diatomaceous earth) and clean the area immediately with a suitable decontaminant.
Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

Reference to other sections: for exposure control and individual protection measures, see section 8, for later elimination of waste, follow the recommendations under section 13.

Section 7: Handling and Storage.

Precautions for safe handling.
The fumes are heavier than air and can spread across the ground. They can form explosive mixtures with air. Prevent the creation of flammable or explosive fume concentrations in the air; prevent fume concentrations above work exposure limits. The product must only be used in areas where all unprotected flames and other ignition points have been eliminated. Electrical equipment has to be protected according to applicable standards.
The product can be electrostatically charged: always use earth grounds when transferring the product. Operators must use anti-static footwear and clothing, and floors must be conductors.
Keep the container tightly closed and isolated from heat sources, sparks, and fire. Do not use tools that can cause sparks. For personal protection, see section 8.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

Conditions for safe storage, including any incompatibilities.
Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

Section 8: Exposure Controls/Personal Protection.

8.1 Control parameters.
Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m³
tert-butyl acetate (Mixture of isomers)	540-88-5	United States	**Eight hours**	50	
			Short term	150	
		United States [1] (Cal/OSHA)	**Eight hours**	200	
			Short term		
		United States [2] (NIOSH)	**Eight hours**	200	950
			Short term		
		United States [3] (OSHA)	**Eight hours**	200	950
			Short term		
n-butyl acetate	123-86-4	United States	**Eight hours**	50	
			Short term	150	
		United States [1] (Cal/OSHA)	**Eight hours**	150	
			Short term	200	

-Continued on next page.-

		United States [2] (NIOSH)	**Eight hours**	150	710
			Short term	200	950
		United States [3] (OSHA)	**Eight hours**	150	710
			Short term	200	950
xylene (Mixture of isomers)	1330-20-7	United States	**Eight hours**	20	
			Short term		
		United States [1] (Cal/OSHA)	**Eight hours**	100	
			Short term	150 (Ceiling) 300	
		United States [2] (NIOSH)	**Eight hours**	100	
			Short term	150	
		United States [3] (OSHA)	**Eight hours**	"100	
			Short term		
ethylbenzene	100-41-4	United States	**Eight hours**	20	
			Short term		
		United States [1] (Cal/OSHA)	**Eight hours**	5	
			Short term	30	
		United States [2] (NIOSH)	**Eight hours**	100	435
			Short term	125	545
		United States [3] (OSHA)	**Eight hours**	5	22
			Short term	30	130
2-methoxy-1-methylethyl acetate	108-65-6	United States [3] (OSHA)	**Eight hours**	100 (Skin)	541 (Skin)
			Short term	150 (Skin)	811 (Skin)
methyl 2-methylprop-2-enoate,methyl 2-methylpropenoate,methyl methacrylate	80-62-6	United States	**Eight hours**	50 (Dermal sensitization)	
			Short term	100 (Dermal sensitization)	
		United States [1] (Cal/OSHA)	**Eight hours**	50	
			Short term	100	
		United States [2] (NIOSH)	**Eight hours**	100	410
			Short term		
		United States [3] (OSHA)	**Eight hours**	50	205
			Short term	100	410
phosphoric acid, orthophosphoric acid	7664-38-2	United States	**Eight hours**		1
			Short term		3
		United States [1] (Cal/OSHA)	**Eight hours**		1
			Short term		3
		United States [2] (NIOSH)	**Eight hours**		1
			Short term		3
		United States [3] (OSHA)	**Eight hours**		1
			Short term		3
dibutyltin dilaurate	77-58-7	United States	**Eight hours**		0,1 (as Sn) (Skin sensitization)
			Short term		0,2 (as Sn) (Skin sensitization)
		United States [2] (NIOSH)	**Eight hours**		0,1 (Organic) (Skin) (As Sn)
			Short term		
		United States [3] (OSHA)	**Eight hours**		0,1 (as Sn) (Skin)
			Short term		0,2 (as Sn) (Skin)

[1] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).
[2] National Institute for Occupational Safety and Health. NIOSH Recommendations for occupational safety and health, Compendium of Policy Documents and Statements, January, 1992, DHHS (NIOSH) Publication No. 92-100.
[3] Occupational Safety and Health Administration, United States Department of Labor. Permissible Exposure limits (PELs), California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).
The product does NOT contain substances with Biological Limit Values.

-Continued on next page.-

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
tert-butyl acetate (Mixture of isomers) CAS No: 540-88-5 EC No: 208-760-7	DNEL (Workers)	Inhalation, Chronic, Systemic effects	159 (mg/m³)
n-butyl acetate CAS No: 123-86-4 EC No: 204-658-1	DNEL (Workers)	Inhalation, Chronic, Systemic effects	480 (mg/m³)
	DNEL (Consumers)	Inhalation, Chronic, Systemic effects	102,34 (mg/m³)
	DNEL (Workers)	Inhalation, Short term, Systemic effects	960 (mg/m³)
	DNEL (Consumers)	Inhalation, Short term, Systemic effects	859,7 (mg/m³)
	DNEL (Workers)	Inhalation, Chronic, Local effects	480 (mg/m³)
	DNEL (Consumers)	Inhalation, Chronic, Local effects	102,34 (mg/m³)
	DNEL (Workers)	Inhalation, Short term, Local effects	960 (mg/m³)
	DNEL (Consumers)	Inhalation, Short term, Local effects	859,7 (mg/m³)
	DNEL (Consumers)	Oral, Chronic, Systemic effects	3,4 (mg/kg bw/day)
	DNEL (Consumers)	Dermal, Chronic, Systemic effects	3,4 (mg/kg bw/day)
Low boiling point naphtha - unspecified,Solvent naphtha (petroleum), light arom.,[A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C8 through C10 and boiling in the range of approximately 135°C to 210°C (275°F to 410°F).] CAS No: 64742-95-6 EC No: 265-199-0	DNEL (Workers)	Inhalation, Chronic, Systemic effects	100 (mg/m³)
xylene (Mixture of isomers) CAS No: 1330-20-7 EC No: 215-535-7	DNEL (Workers)	Inhalation, Chronic, Systemic effects	77 (mg/m³)
ethylbenzene CAS No: 100-41-4 EC No: 202-849-4	DNEL (Workers)	Inhalation, Chronic, Systemic effects	77 (mg/m³)
2-methoxy-1-methylethyl acetate CAS No: 108-65-6 EC No: 203-603-9	DNEL (Workers)	Inhalation, Chronic, Systemic effects	275 (mg/m³)
	DNEL (Consumers)	Inhalation, Chronic, Systemic effects	33 (mg/m³)
	DNEL (Workers)	Dermal, Chronic, Systemic effects	153,5 (mg/kg bw/day)
	DNEL (Consumers)	Dermal, Chronic, Systemic effects	54,8 (mg/kg bw/day)
	DNEL (Consumers)	Oral, Chronic, Systemic effects	1,67 (mg/kg bw/day)
methyl 2-methylprop-2-enoate,methyl 2-methylpropenoate,methyl methacrylate CAS No: 80-62-6 EC No: 201-297-1	DNEL (Workers)	Inhalation, Chronic, Local effects	208 (mg/m³)
	DNEL (Workers)	Inhalation, Chronic, Systemic effects	208 (mg/m³)
phosphoric acid, orthophosphoric acid CAS No: 7664-38-2	DNEL (Workers)	Inhalation, Chronic, Local effects	1 (mg/m³)

-Continued on next page.-

EC No: 231-633-2	DNEL (Consumers)	Inhalation, Chronic, Local effects	0,73 (mg/m³)
	DNEL (Workers)	Inhalation, Short term, Local effects	2 (mg/m³)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
Concentration levels PNEC:

Name	Details	Value
n-butyl acetate CAS No: 123-86-4 EC No: 204-658-1	aqua (freshwater)	0,18 (mg/l)
	aqua (marine water)	0,018 (mg/l)
	aqua (intermittent releases)	0,36 (mg/l)
	STP	35,6 (mg/l)
	sediment (freshwater)	0,981 (mg/kg sediment dw)
	sediment (marine water)	0,0981 (mg/kg sediment dw)
2-methoxy-1-methylethyl acetate CAS No: 108-65-6 EC No: 203-603-9	aqua (freshwater)	0,635 (mg/L)
	aqua (marine water)	0,0635 (mg/L)
	aqua (intermittent releases)	6,35 (mg/L)
	STP	100 (mg/L)
	sediment (freshwater)	3,29 (mg/kg sediment dw)
	sediment (marine water)	0,329 (mg/kg sediment dw)
	soil	0,29 (mg/kg soil dw)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

Exposure controls.
Measures of a technical nature:
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	**100 %**		
Uses:	**Protective coating for truck beds.**		
Breathing protection:			
PPE:	Filter mask for protection against gases and particles. 		
Characteristics:	«CE» marking, category III. The mask must have a wide field of vision and an anatomically designed form in order to be sealed and watertight.		
Maintenance:	Should not be stored in places exposed to high temperatures and damp environments before use. Special attention should be paid to the state of the inhalation and exhalation valves in the face adaptor.		
Observations:	Read carefully the manufacturer's instructions regarding the equipment's use and maintenance. Attach the necessary filters to the equipment according to the specific nature of the risk (Particles and aerosols: P1-P2-P3, Gases and vapours: A-B-E-K-AX), changing them as advised by the manufacturer.		
Filter Type needed:	A2		
Hand protection:			
PPE:	Non-disposable protective gloves against chemicals. 		
Characteristics:	«CE» marking, category III. Check the list of chemicals for which the glove has been tested.		
Maintenance:	A schedule for the periodical replacement of gloves should be established in order to guarantee their replacement before pollutants permeate them. The use of contaminated gloves could be more dangerous than not using gloves, since the pollutant can gradually accumulate in the glove's material.		
Observations:	They are to be replaced whenever tears, cracks or deformations are observed or when exterior dirt could reduce their strength.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.): > 480	Material thickness (mm): 0,35

-Continued on next page.-

Eye protection:	
PPE:	Protective goggles with built-in frame. 
Characteristics:	«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.
Skin protection:	
PPE:	Chemical protective clothing 
Characteristics:	«CE» marking, category III. Clothing should fit properly. The level of protection must be set according to a test parameter called BT (Breakthrough Time), which indicates how long it takes for the chemical to pass through the material.
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.
Observations:	The protective clothing's design should facilitate correct positioning, staying in place without moving for the period of use expected, bearing in mind environmental factors as well as any movement or position the user might adopt while carrying out the activity.
PPE:	Anti-static safety footwear against chemicals. 
Characteristics:	«CE» marking, category III. Check the list of chemicals against which the footwear is resistant.
Maintenance:	For correct maintenance of this kind of safety footwear, it is necessary to observe the instructions specified by the manufacturer. The footwear should be replaced as soon as any sign of damage is observed.
Observations:	The footwear should be cleaned regularly and dried when damp, although it should not be placed too close to a source of heat in order to avoid any sharp changes in temperature.

Section 9: Physical and Chemical Properties.

Information on basic physical and chemical properties.
Appearance: Paste.
Colour: Transparent black.
Odour: Solvent like.
Odour threshold: Not available.
pH: Not available.
Melting point/freezing point: Not available.
Initial boiling point or boiling range: 138 - 145 ºC
Flash point: 22 ºC
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Lower Explosive Limit: Not available.
Upper Explosive Limit: Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: Not available.
Solubility: Not soluble in water
Liposolubility: Not available.
Hydrosolubility: Not available.
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Absolute density: 996 kg/m3

Other information.
Explosive properties: Not available.
Oxidizing properties: Not available.
Pour point: Not available.
Blink: Not available.

-Continued on next page.-

Kinematic viscosity: Not available.

Section 10: Stability and Reactivity.

Reactivity.
The product does not present hazards by their reactivity.

Chemical stability.
Stable under the recommended handling and storage conditions (see section 7).

Possibility of hazardous reactions.
The product does not present possibility of hazardous reactions.

Conditions to avoid.
Avoid any improper handling.

Incompatible materials.
Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

Hazardous decomposition products.
No decomposition if used for the intended uses.

Section 11: Toxicological Information.

Information on toxicological effects.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
n-butyl acetate CAS No: 123-86-4 EC No: 204-658-1	Oral	LD50	Rat	10800 mg/kg bw [1] [1] Acute Toxicity Data. Journal of the American College of Toxicology, Part B. Vol. 1, Pg. 196, 1992
	Dermal	LD50	Rabbit	>17600 mg/kg bw [1] [1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 7, 1974
	Inhalation	LC50	Rat	1.85 mg/l/4 h [1] [1] Inhalation Toxicology. Vol. 9, Pg. 623, 1997
xylene (Mixture of isomers) CAS No: 1330-20-7 EC No: 215-535-7	Oral	LD50	Rat	4300 mg/kg bw [1] [1] AMA Archives of Industrial Health. Vol. 14, Pg. 387, 1956
	Dermal	LD50	Rabbit	> 1700 mg/kg bw [1] [1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974
	Inhalation	LC50	Rat	21,7 mg/l/4 h [1] [1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974

-Continued on next page.-

Ethylbenzene CAS No: 100-41-4 EC No: 202-849-4	Oral	LD50 Rat 3500 mg/kg bw [1] [1] AMA Archives of Industrial Health. Vol. 14, Pg. 387, 1956
	Dermal	LD50 Rabbit 15400 mg/kg bw [1] [1] Food and Cosmetics Toxicology. Vol. 13, Pg. 803, 1975
	Inhalation	
2-methoxy-1-methylethyl acetate CAS No: 108-65-6 EC No: 203-603-9	Oral	LD50 Rat 6190 mg/kg bw [1] [1] Study report, 1985. OECD Guideline 401 (Acute Oral Toxicity).
	Dermal	LD50 Rabbit >5000 mg/kg bw [1] [1] Dow Chemical Company Reports. Vol. MSD-1582
	Inhalation	LC0 Rat >4345 ppm (6 h) [1] [1] Study report, 1980. OECD Guideline 403 (Acute Inhalation Toxicity).
phosphoric acid, orthophosphoric acid CAS No: 7664-38-2 EC No: 231-633-2	Oral	LD50 Rata 1530 mg/kg bw [1] [1] BIOFAX IndustrialBio-Test Laboratories, Inc., Data Sheets. Vol. 17-4/1970
	Dermal	LD50 Conejo 2740 mg/kg bw [1] [1] BIOFAX Industrial Bio-Test Laboratories, Inc., Data Sheets. Vol. 17-4/1970
	Inhalation	LC50 mouse 25.5 mg/m³ air [1] [1] Toxicological Characteristics of Phosphoric Acid and Some of Its Chromium Salts Used as Binding Agents in the Production of Refractory Materials, 1983.

a) acute toxicity;
Not conclusive data for classification.

Acute Toxicity Estimate (ATE):
Mixtures:
ATE (Dermal) = 73,456 mg/kg

b) skin corrosion/irritation;
Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;
Not conclusive data for classification.

d) respiratory or skin sensitisation;
Based on available data, the classification criteria are not met.

e) germ cell mutagenicity;
Product classified:
Mutagen, Category 1B: May cause genetic defects.

f) carcinogenicity;
Product classified:
Carcinogen, Category 1B: May cause cancer.

g) reproductive toxicity;
Based on available data, the classification criteria are not met.

h) STOT-single exposure;
Based on available data, the classification criteria are not met.

-Continued on next page.-

i) STOT-repeated exposure;
Based on available data, the classification criteria are not met.

j) aspiration hazard;
Based on available data, the classification criteria are not met.

Substances present in the composition listed in the National Toxicology Program (NTP) Report on Carcinogens (RoC):
This product does not contain substances listed in the National Toxicology Program (NTP) Report on Carcinogens (RoC).

Substances present in the composition listed in the International Agency for Research on Cancer (IARC) Monographs:

CAS No.	Agent	*Group	Volume	Year	Additional information
100-41-4	ethylbenzene	2B	77	2000	
80-62-6	methyl 2-methylprop-2-enoate,methyl 2-methylpropenoate,methyl methacrylate	3	Sup 7, 60	1994	
1330-20-7	xylene (Mixture of isomers)	3	47, 71	1999	
Proprietary	Proprietary	3	19, Sup 7	1987	

* GROUP
Group 2B Possibly carcinogenic to humans
Group 3 Not classifiable as to its carcinogenicity to humans

Section 12: Ecological Information.

Ecotoxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
n-butyl acetate CAS No: 123-86-4 EC No: 204-658-1	Fish	LC50	Fish	81 mg/l (96 h) [1] [1] Wellens, H. 1982. Comparison of the Sensitivity of Brachydanio rerio and Leuciscus idus by Testing the Fish Toxicity of Chemicals and Wastewaters. Z.Wasser-Abwasser-Forsch. 51(2):49-52 (GER) (ENG ABS). Dawson, G.W., A.L. Jennings, D. Drozdowski, and E. Rider 1977. The Acute Toxicity of 47 Industrial Chemicals to Fresh and Saltwater Fishes. J.Hazard.Mater. 1(4):303-318 (OECDG Data File)
	Aquatic invertebrates	EC50	Daphnia sp.	44 mg/l (48 h) [1] [1] publication, 1959
	Aquatic plants	EC50	Desmodesmus subspicatus (reported as Scenedesmus subspicatus)	674.7 mg/l (72 h) [1] [1] Method: other: algae growth inhibition test, according to Umweltbundesamt (German Federal Environment Agency) (proposal/draft, version February 1984)
xylene (Mixture of isomers)	Fish	LC50	Fish	15,7 mg/l (96 h) [1] [1] Bailey, H.C., D.H.W. Liu, and H.A. Javitz 1985. Time/Toxicity Relationships in Short-Term Static, Dynamic, and Plug-Flow Bioassays. In: R.C.Bahner and D.J.Hansen (Eds.), Aquatic Toxicology and Hazard Assessment, 8th Symposium, ASTM STP 891, Philadelphia, PA :193-212

-Continued on next page.-

CAS No: 1330-20-7 EC No: 215-535-7	Aquatic invertebrates	LC50 Crustacean 8,5 mg/l (48 h) [1] [1] Tatem, H.E., B.A. Cox, and J.W. Anderson 1978. The Toxicity of Oils and Petroleum Hydrocarbons to Estuarine Crustaceans. Estuar.Coast.Mar.Sci. 6(4):365-373. Tatem, H.E. 1975. The Toxicity and Physiological Effects of Oil and Petroleum Hydrocarbons on Estuarine Grass Shrimp Palaemonetes pugio (Holthuis). Ph.D.Thesis, Texas A&M University, College Station, TX :133 p
	Aquatic plants	
ethylbenzene CAS No: 100-41-4 EC No: 202-849-4	Fish	LC50 Fish 80 mg/l (96 h) [1] [1] Mayer, F.L.Jr., and M.R. Ellersieck 1986. Manual of Acute Toxicity: Interpretation and Data Base for 410 Chemicals and 66 Species of Freshwater Animals. Resour.Publ.No.160, U.S.Dep.Interior, Fish Wildl.Serv., Washington, DC :505 p. (USGS Data File)
	Aquatic invertebrates	LC50 Crustacean 16,2 mg/l (48 h) [1] [1] MacLean, M.M., and K.G. Doe 1989. The Comparative Toxicity of Crude and Refined Oils to Daphnia magna and Artemia. Environment Canada, EE-111, Dartmouth, Nova Scotia :64 p
	Aquatic plants	EC50 Algae 5 mg/l (72 h) [1] [1] Galassi, S., M. Mingazzini, L. Vigano, D. Cesareo, and M.L. Tosato 1988. Approaches to Modeling Toxic Responses of Aquatic Organisms to Aromatic Hydrocarbons. Ecotoxicol.Environ.Saf. 16(2):158-169. Masten, L.W., R.L. Boeri, and J.D. Walker 1994. Stategies Employed to Determine the Acute Aquatic Toxicity of Ethyl Benzene, a Highly Volatile, Poorly Water-Soluble Chemical. Ecotoxicol.Environ.Saf. 27(3):335-348
2-methoxy-1-methylethyl acetate CAS No: 108-65-6 EC No: 203-603-9	Fish	LC50 Oryzias latipes 100 mg/L (96 h) [1] [1] Environment Agency of Japan (1998)
	Aquatic invertebrates	EC50 Daphnia magna 407 mg/L (48 h) [1] [1] Environment Agency of Japan (1998)
	Aquatic plants	EC50 Selenastrum capricornutum (Pseudokirchnerella subcapitata) >1000 mg/L (72 h) [1] [1] Environment Agency of Japan (1998)
phosphoric acid ... %, orthophosphoric acid ... % CAS No: 7664-38-2 EC No: 231-633-2	Fish	LC50 Oryzias latipes 75.1 mg/L (96 h) [1] [1] summaryof study report, 2005
	Aquatic invertebrates	EC50 Daphnia magna >100 mg/L (48 h) [1] [1] study report, 2010
	Aquatic plants	EC50 Desmodesmus subspicatus >100 mg/L (72 h) [1] [1] study report, 2010

Persistence and degradability.
No information is available regarding the biodegradability of the substances present.
No information is available on the degradability of the substances present.
No information is available about persistence and degradability of the product.

-Continued on next page.-

Bioaccumulative potential.
Information about the bioaccumulation of the substances present.

Name	Bioaccumulation			
	Log Pow	BCF	NOECs	Level
tert-butyl acetate (Mixture of isomers) CAS No: 540-88-5 EC No: 208-760-7	1,76	-	-	Very high
n-butyl acetate CAS No: 123-86-4 EC No: 204-658-1	1,78	-	-	Very high
ethylbenzene CAS No: 100-41-4 EC No: 202-849-4	3,15	-	-	Very high

Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

Other adverse effects.
No information is available about other adverse effects for the environment.

Section 13: Disposal Considerations.

Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of the Resource Conservation and Recovery Act (RCRA) and the Resource Conservation and Recovery Act Information (RCRAInfo) regarding waste management.

Section 14: Transport Information.

Transport following the rules of U.S. Department of transportation Pipeline and Hazardous Materials Safety Administration.

In accordance with DOT
Not Dangerous Good.

Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR)

UN number.
UN No: UN1263

UN proper shipping name.
Description:
ADR/RID: UN 1263, PAINT RELATED MATERIAL, 3, PG III
IMDG: UN 1263, PAINT RELATED MATERIAL, 3, PG III (22ºC)
ICAO/IATA: UN 1263, PAINT RELATED MATERIAL, 3, PG III

Transport hazard class(es).
Class(es): 3

Packing group.
Packing group: III

-Continued on next page.-

Environmental hazards.
Marine pollutant: No
Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-E,S-E

Transport in bulk according to Annex II of MARPOL and the IBC Code.
The product is not transported in bulk.

Special precautions for user.
Labels: 3

Hazard number: Not applicable.
Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.
Proceed in accordance with point 6.
ADR LQ: 5 L
IMDG LQ: 5 L
ICAO LQ: 10 L

Section 15: Regulatory Information.

Safety, health and environmental regulations specific for the product.
VVOC content (p/p): 0 %
VVOC content: 0 g/l
VOC content (p/p): 47.358 %
VOC content: 472.423 g/l
SVOC content (p/p): .008 %
SVOC content: .08 g/l
VVOC: Very volatile organic compounds.
VOC: Volatile organic compounds.
SVOC: Semi volatile organic compounds.

Information on the TSCA Inventory (Toxic Substances Control Act) USA:

CAS No	Name	State
Proprietary	Proprietary	Registered15
540-88-5	tert-butyl acetate (Mixture of isomers)	Registered15
123-86-4	n-butyl acetate	Registered15
112945-52-5	Amorphous Silica	
Proprietary	Proprietary	Registered15
64742-95-6	Low boiling point naphtha - unspecified,Solvent naphtha (petroleum), light arom.,[A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C8 through C10 and boiling in the range of approximately 135°C to 210°C (275°F to 410°F).]	Registered15
1330-20-7	xylene (Mixture of isomers)	Registered15
113669-95-7	Fatty acids, castor-oil, caustic-oxidized, distn. residues, esters with 1,3-butanediol	Registered15
100-41-4	ethylbenzene	Registered15
108-65-6	2-methoxy-1-methylethyl acetate	Registered15
80-62-6	methyl 2-methylprop-2-enoate,methyl 2-methylpropenoate,methyl methacrylate	Registered15
109-16-0	2,2'-ethylenedioxydiethyl dimethacrylate	Registered15
7664-38-2	phosphoric acid, orthophosphoric acid	Registered15

-Continued on next page.-

77-58-7	dibutyltin dilaurate	Registered16
	Proprietary	
398475-96-2	Alkylolammonium salt	Registered16

Substances including by the Rotterdam Convention concerning the export and import of dangerous chemicals:

Name	
dibutyltin dilaurate CAS No: 77-58-7 EC No: 201-039-8	
Annex I Part 1 - Subcategory	**Limitation**
Industrial chemical for public use	Severe restriction

The Superfund Amendments and Reauthorization Act (SARA).
SARA Title III and it sets requirements for local and state emergency planning around hazardous chemicals, the right of the public to access information on chemical hazards in their community, and the reporting responsibilities for facilities that use, store, and / or release hazardous chemicals.

SARA Title III has four provisions (any facility with responsibilities under one section will likely have additional responsibilities under another section, consult SARA for more information):
-Emergency Planning (Sections 301-303)
-Emergency Release Notification (Section 304)
-Hazardous Chemical Storage Reporting Requirements (Section 311-312)
-Toxic Chemical Release Inventory (Section 313)

Information related to the product:
Section 302, Extremely Hazardous Substances (EHSs)(40 CFR part 355 Appendix A and Appendix B) and section 304, in the event of an accidental chemical release that exceeds minimal Reportable Quantity (RQ):

Not Applicable.

Section 311, Requires facilities with hazardous chemicals in quantities above certain thresholds (consult OSHA for more information) to provide copies of the SDSs for those chemicals to the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC) and local fire department.

Section 312, Companies with chemicals in sufficient quantities to trigger obligations under Section 311 must also submit an annual emergency and hazardous chemical inventory form to the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC) and local fire department

Section 313, requires facilities with 10 or more employees that use certain toxic chemicals in quantities above threshold levels to report annually on the use, release and disposal of those chemicals, substances identified in section 3:

Not Applicable.

Visit the EPA's website for the most up-to-date information on EPCRA and other environmental considerations.

Proposition 65 warnings
Information related to The Safe Drinking Water and Toxic Enforcement Act of 1986, (better known by its original name of Proposition 65):

Substances of section 3 present in a list of chemicals that can cause cancer, birth defects or other reproductive harm (Proposition 65 List):

Name	Type of Toxicity	Listing Mechanism*	Date Listed	NSRL or MADL (µg/day)**
ethylbenzene CAS No: 100-41-4	cancer	AB	ju-11--04	54 (inhalation) 41 (oral)

* In the Listing Mechanism column, 'AB' denotes authoritative bodies, 'SQE' denotes State's Qualified Experts, 'FR' denotes formally required to be labeled or identified, and 'LC' denotes Labor Code.
** Where a source or product results in exposures by multiple routes, the total exposure must be considered. For example, the MADL for benzene is exceeded when the absorbed dose exceeds 24 µg/day. If only inhalation and oral exposure occurs, the benzene MADL is exceeded when: (oral dose ÷ 24 µg/day) + (inhalation dose ÷ 49 µg/day) > 1.0.

-Continued on next page.-

Section 16: Other Information.

Complete text of the hazard statement(s) that appear in section 3:

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs <state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.(órganos de audición)
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Classification codes:

Acute Tox. 4 : Acute toxicity (Dermal), Category 4
Acute Tox. 4 : Acute toxicity (Inhalation), Category 4
Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Aquatic Chronic 1 : Chronic effect to the aquatic environment, Category 1
Asp. Tox. 1 : Aspiration toxicity, Category 1
Carc. 1B : Carcinogen, Category 1B
Eye Irrit. 2A : Eye irritation, Category 2A
Flam. Liq. 2 : Flammable liquid, Category 2
Flam. Liq. 3 : Flammable liquid, Category 3
Muta. 1B : Mutagen, Category 1B
Muta. 2 : Mutagen, Category 2
Repr. 1B : Reproductive toxicant, Category 1B
STOT RE 1 : Specific target organ toxicity following a repeated exposure, Category 1
STOT RE 2 : Specific target organ toxicity following a repeated exposure, Category 2
STOT SE 3 : Specific target organ toxicity following a single exposure, Category 3
Skin Corr. 1B : Skin Corrosive, Category 1B
Skin Irrit. 2 : Skin irritant, Category 2
Skin Sens. 1 : Skin sensitiser, Category 1
Skin Sens. 1B : Skin sensitiser, Category 1B

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

ADR:	Agreement concerning the International Carriage of Dangerous Goods by Road.
BCF:	Bioconcentration factor.
DMEL:	Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
DNEL:	Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
EC50:	Half maximal effective concentration.

-Continued on next page.-

PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
MADL: Maximum Allowable Dose Levels.
NOEC: No observed effect concentration.
NSRL: No Significant Risk Levels.
PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:
The Hazard Communication Standard (HCS) (29 CFR 1910.1200)
United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
https://www.osha.gov
https://www.epa.gov/
http://echa.europa.eu/

The information given in this Safety Data Sheet has been drafted in accordance with The Hazard Communication Standard (HCS) (29 CFR 1910.1200) and United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Employers must ensure that the SDSs are readily accessible to employees for all hazardous chemicals in their workplace.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

-End of safety data sheet..-