SAFETY DATA SHEET

Safety Data Sheet according to GB/T 16483-2008 and GB/T 17519-2013



Date of issue/Date of revision 23 October 2023

Version 1.02

Section 1. Chemical product and company identification				
Product code	: 000001191884			
Product name	: SIGMAZINC 68 GP HARDENER			
产品名称	: SIGMAZINC 68 GP HARDENER			
Other means of identification	: 😡 463749; 00474754			
Product type	: Liquid.			
Relevant identified uses of the substance or mixture and uses advised against				
Product use	: Professional applications, Used by spraying.			
Use of the substance/ mixture	: Coating.			
Uses advised against	: Not applicable.			
Supplier's details	: PPG Coatings (Kunshan) Co., Ltd 53 Jinyang Road, Lujia Town, 215331 Kunshan City, Jiangsu Province, P.R. China Tel: 86 512 57678859 Fax: 86 512 57678857			
Emergency telephone number (with hours of operation)	: 00 86 532 83889090			

Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

Emergency overview

Liquid. Clear. Amine-like. [Strong] Flammable liquid and vapour. Harmful if swallowed or if inhaled. May be harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing cancer. Toxic to aquatic life. Harmful to aquatic life with long lasting effects. Prolonged or repeated contact may dry skin and cause irritation.

IF exposed or concerned: Get medical advice or attention. IF INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. IF ON SKIN (or hair): Immediately call a POISON CENTER or doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Immediately call a POISON CENTER or doctor.

Section 2. Hazards identification

See Section 12 for environmental precautions.

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 1C SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 SKIN SENSITISATION - Category 1 CARCINOGENICITY - Category 2 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 23.7%
	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 23.7% Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 37.5%
	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 33.5%
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapour. Harmful if swallowed or if inhaled. May be harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing cancer. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapour. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Product name Sigmazine 66 GP HARDENER

Section 2. Hazards identification

Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Physical and chemical hazards	: Flammable liquid and vapour.
Health hazards	: Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing cancer. Prolonged or repeated contact may dry skin and cause irritation.
Symptoms related to the phy	vsical, chemical and toxicological characteristics
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
	ts as well as chronic effects from short and long-term exposure
Short term exposure Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Environmental hazards	: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Section 2. Hazards identification

Other hazards which do not : Prolonged or repeated contact may dry skin and cause irritation. **result in classification**

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of	: 🗖 463749; 00474754
identification	

CAS number/other identifiers

CAS number : Not applicable.		
Ingredient name	%	CAS number
Epoxy Amine Resin	10 - <25	SUB123903
xylene isomers mixture	10 - <25	1330-20-7
1-methoxy-2-propanol	10 - <25	107-98-2
Propylidynetrimethanol, propoxylated, reaction products with ammonia	10 - <25	39423-51-3
benzyl alcohol	1 - <10	100-51-6
1,2-xylene	1 - <10	95-47-6
2-methylpropan-1-ol	1 - <10	78-83-1
ethylbenzene	1 - <10	100-41-4
m-phenylenebis(methylamine)	1 - <10	1477-55-0
2,4,6-tris(dimethylaminomethyl)phenol	1 - <10	90-72-2

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
Inhalation	 Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	 Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Ingestion	 If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effect	<u>ts</u>	
Eye contact	1	Causes serious eye damage.
Inhalation	:	Harmful if inhaled.
Skin contact	:	Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.

Section 4. First aid measures

Ingestion	larmful if swallowed.	
Over-exposure signs/symp		
Eye contact	dverse symptoms may include the following: ain vatering edness	
Inhalation	lo specific data.	
Skin contact	dverse symptoms may include the following: ain or irritation edness ryness racking listering may occur	
Ingestion	dverse symptoms may include the following: tomach pains	
Indication of immediate med	<u>ittention and special treatment needed, if necessary</u>	
Notes to physician	n case of inhalation of decomposition products in a fire, symptoms may be delaye The exposed person may need to be kept under medical surveillance for 48 hours	
Specific treatments	lo specific treatment.	
Protection of first-aiders	Io action shall be taken involving any personal risk or without suitable training. If a suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing horoughly with water before removing it, or wear gloves.	it

See toxicological information (Section 11)

Section 5. Firefighting measures **Extinguishing media** Suitable extinguishing : Use dry chemical, CO₂, water spray (fog) or foam. media Unsuitable extinguishing : Do not use water jet. media : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. Specific hazards arising from the chemical In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. **Hazardous thermal** : Decomposition products may include the following materials: carbon oxides decomposition products nitrogen oxides **Special protective actions** Promptly isolate the scene by removing all persons from the vicinity of the incident if τ. for fire-fighters there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 5. Firefighting measures

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protect	ive equipment and emergency procedures
For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and material for con	tainment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe : handling	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling)
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Product code 000001191884 Product name SIGMAZINC 68 GP HARDENER

Section 7. Handling and storage

equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage, including any incompatibilities
 Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
xylene isomers mixture	GBZ 2.1 (China, 8/2019). [Xylene (all isomers)] PC-STEL: 100 mg/m ³ 15 minutes.
1-methoxy-2-propanol	PC-TWA: 50 mg/m ³ 8 hours. ACGIH TLV (United States, 1/2022). STEL: 369 mg/m ³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 184 mg/m ³ 8 hours.
1,2-xylene	TWA: 50 ppm 8 hours. GBZ 2.1 (China, 8/2019). [Xylene (all
2-methylpropan-1-ol	isomers)] PC-STEL: 100 mg/m ³ 15 minutes. PC-TWA: 50 mg/m ³ 8 hours. ACGIH TLV (United States, 1/2022). TWA: 152 mg/m ³ 8 hours.
ethylbenzene	TWA: 50 ppm 8 hours. GBZ 2.1 (China, 8/2019). PC-STEL: 150 mg/m ³ 15 minutes.
m-phenylenebis(methylamine)	PC-TWA: 100 mg/m ³ 8 hours. ACGIH TLV (United States, 1/2022). Absorbed through skin. C: 0.018 ppm
	be made to appropriate monitoring standards. Reference to documents for methods for the determination of hazardous be required.
Appropriate engineering : Use only with adequ	uate ventilation. Use process enclosures, local exhaust

controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

China	Page: 7/15
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Section 8. Exposure controls/personal protection

Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measu	<u>ires</u>	
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye protection	1	Chemical splash goggles and face shield.
Skin protection		
Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	:	nitrile neoprene
Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

. Liquid
: Liquid.
: 🕅 ear.
: Amine-like. [Strong]
: >37.78°C (>100°F)
: Closed cup: 33°C (91.4°F)
: Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)
: 0.96

Section 9. Physical and chemical properties

Solubility(ies) :	Media	Result
Solubility(les)	cold water	Not soluble
Viscosity :	Kinematic (40°C): >21 mr	m²/s
Viscosity :	60 - 100 s (ISO 6mm)	

Section 10. Stabil	ity and reactivity
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides

Section 11. Toxicological information

Information on toxicological effects

	uto	tovi	icity	
AU	ute	UN		

Result	Species	Dose	Exposure
LD50 Dermal	Rabbit	1.7 g/kg	-
LD50 Oral	Rat	4.3 g/kg	-
LC50 Inhalation	Rat	>7000 ppm	6 hours
Vapour			
LD50 Dermal	Rabbit	13 g/kg	-
LD50 Oral	Rat	5.2 g/kg	-
LD50 Dermal	Rabbit	0.4 g/kg	-
LD50 Oral	Rat	0.22 g/kg	-
LC50 Inhalation Dusts	Rat	>4178 mg/m ³	4 hours
and mists			
LD50 Dermal	Rabbit	2000 mg/kg	-
LD50 Oral	Rat	1.23 g/kg	-
LC50 Inhalation	Rat	27124 mg/m ³	4 hours
Vapour			
LD50 Dermal	Rabbit	12126 mg/kg	-
LD50 Oral	Rat	3523 mg/kg	-
LC50 Inhalation	Rat	24.6 mg/l	4 hours
Vapour			
LD50 Dermal	Rabbit	2460 mg/kg	_
	LD50 Oral LC50 Inhalation Vapour LD50 Dermal LD50 Oral LD50 Oral LC50 Inhalation Dusts and mists LD50 Dermal LD50 Oral LC50 Inhalation Vapour LD50 Dermal LD50 Oral LC50 Inhalation Vapour	LD50 OralRatLC50 InhalationRatVapourRabbitLD50 DermalRatLD50 OralRatLD50 DermalRatLD50 OralRatLD50 OralRatLD50 OralRatLD50 OralRatLD50 OralRatLD50 OralRatLD50 DermalRabbitLD50 DermalRatLD50 OralRatLD50 OralRatLD50 OralRatLD50 DermalRabbitLD50 DermalRabbitLD50 DermalRabbitLD50 OralRatLD50 OralRat	LD50 Oral LC50 InhalationRat4.3 g/kg RatLC50 InhalationRat>7000 ppmVapour LD50 DermalRabbit13 g/kg RatLD50 Oral LD50 DermalRat5.2 g/kg RatLD50 Oral LD50 DermalRat0.4 g/kgLD50 Oral LC50 Inhalation Dusts and mistsRat0.22 g/kg RatLD50 Dermal LD50 DermalRat2000 mg/kg RatLD50 Dermal LD50 DermalRat1.23 g/kg RatLD50 Dermal LD50 Oral LD50 Oral LD50 DermalRat27124 mg/m³Vapour LD50 Dermal LD50 Oral LD50 Oral LD50 Oral Rat12126 mg/kg RatRat Rat3523 mg/kg RatLD50 Oral LD50 Oral LD50 Oral RatRatRabbit LD50 Oral LD50 Oral LD50 Oral Rat24.6 mg/l

Product code 000001191884

Product name SIGMAZINC 68 GP HARDENER

Section 11. Toxicological information

	LD50 Oral	Rat	2830 mg/kg	-
ethylbenzene	LC50 Inhalation	Rat	17.8 mg/l	4 hours
	Vapour			
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
m-phenylenebis(methylamine)	LC50 Inhalation Gas.	Rat	700 ppm	1 hours
	LD50 Dermal	Rat - Male,	>3100 mg/kg	-
		Female		
	LD50 Oral	Rat	930 mg/kg	-
2,4,6-tris(dimethylaminomethyl)	LD50 Dermal	Rabbit	1.28 g/kg	-
phenol				
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene isomers mixture	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
m-phenylenebis (methylamine)	Skin - Severe irritant	Rat	-	4 hours	4 hours
2,4,6-tris (dimethylaminomethyl) phenol	Skin - Visible necrosis	Rabbit	-	4 hours	7 days

Sensitisation

••••••	Route of exposure	Species	Result
m-phenylenebis (methylamine)	skin	Mouse	Sensitising

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1-methoxy-2-propanol 2-methylpropan-1-ol	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	• •	Route of exposure	Target organs
ethylbenzene	Category 2	-	-

Section 11. Toxicological information

Aspiration hazard

Name	Result
	ASPIRATION HAZARD - Category 2 ASPIRATION HAZARD - Category 1

Information on likely routes : Not available. of exposure

oi exposure		
Potential acute health effects		
Eye contact	:	Causes serious eye damage.
Inhalation	:	Harmful if inhaled.
Skin contact	:	Causes severe burns. May be harmful in contact with skin. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	:	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Long term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
General	 Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMAZINC 68 GP HARDENER	1695.9	2033.9	95986.4	23.7	2.3
xylene isomers mixture	4300	1700	N/A	11	1.5
1-methoxy-2-propanol	5200	13000	N/A	N/A	N/A
Propylidynetrimethanol, propoxylated, reaction products with ammonia	500	1100	N/A	N/A	N/A
benzyl alcohol	1230	2000	N/A	N/A	1.5
1,2-xylene	3523	1100	N/A	11	1.5
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
m-phenylenebis(methylamine)	930	2500	4500	N/A	N/A
2,4,6-tris(dimethylaminomethyl)phenol	1200	1280	N/A	N/A	N/A

Other information

Prolonged or repeated contact may dry skin and cause irritation. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/ aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

Section 12. Ecological information

<u>Toxicity</u>

Product/ingredient name	Result	Species	Exposure
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
2,4,6-tris	Acute LC50 175 mg/l	Fish	96 hours
(dimethylaminomethyl)pheno			

Persistence/degradability

Product/ingredient name	Test	Result		Dose		Inoculum
1,2-xylene ethylbenzene	OECD 301F -		adily - 28 days adily - 10 days	-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
xylene isomers mixture benzyl alcohol 1,2-xylene ethylbenzene	- - -		- - -		Readily Readily Readily Readily	/ /

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
xylene isomers mixture	3.12	7.4 to 18.5	Low
1-methoxy-2-propanol	<1	-	Low
Propylidynetrimethanol,	-1.13	-	Low
propoxylated, reaction			
products with ammonia			
benzyl alcohol	0.87	-	Low
1,2-xylene	3.12	14.13	Low
2-methylpropan-1-ol	1	-	Low
ethylbenzene	3.6	79.43	Low
m-phenylenebis	0.18	2.69	Low
(methylamine)			
2,4,6-tris	0.219	-	Low
(dimethylaminomethyl)phenol			

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimised wherever possible. 2 Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	1	I		I
	China	UN	IMDG	ΙΑΤΑ
UN number	UN3469	UN3469	UN3469	UN3469
UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
Transport hazard class(es)	3 (8)	3 (8)	3 (8)	3 (8)
Packing group	111	111	111	
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China Page: 13/15

Product code 000001191884 Product name SIGMAZINC 68 GP HARDENER			Date of issue 23 Octob	er 2023 Version 1.02
Section 14.	Transport inf	ormation		
Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

CN	: None identified.
UN	: None identified.
IMDG	: None identified.
ΙΑΤΑ	: None identified.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable. to IMO instruments

Section 15. Regulatory information

China inventory (IECSC)	: All components are listed or exempted.
References	 Production Safety Law of the People's Republic of China Code of Occupational Disease Prevention of the People's Republic of China Environmental Protection Law of the People's Republic of China Fire Control Law of the People's Republic of China Regulations on the Control over Safety of Dangerous Chemicals Occupational exposure limits for hazardous agents in the workplace chemical hazardous agents (GBZ2.1) General rule for classification and hazard communication of chemicals (GB13690) Safety data sheet for chemical products - Content and order of sections (GB/ T16483) Guidance on the compilation of safety data sheet for chemical products (GB/ T17519) General rule for preparation of precautionary label for chemicals (GB15258) Safety rules for classification, precautionary labeling and precautionary statements of chemicals (GB30000.2-29)

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 23 October 2023
Date of previous issue	: 8/10/2023
Version	: 1.02
	EHS

Product code 000001191884

Product name SIGMAZINC 68 GP HARDENER

Section 16. Other information

Key to abbreviations	: ADN = European Provisions concerning the International Carriage of Dangerous
	Goods by Inland Waterway
	ADR = The European Agreement concerning the International Carriage of
	Dangerous Goods by Road
	ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	IATA = International Air Transport Association
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL = International Convention for the Prevention of Pollution From Ships,
	1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	RID = The Regulations concerning the International Carriage of Dangerous Goods
	by Rail
	UN = United Nations

V Indicates information that has changed from previously issued version.

Notice to reader

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.