# SAFETY DATA SHEET





Date of issue/Date of revision

13 September 2016

Version 6.01

## **Section 1. Identification**

Product code : 00140773

Product name: SIGMAZINC 109 HARDENER产品名称: 环氧富锌底漆109 固化剂

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)

: 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.

Yellow.

Amine-like.

Flammable liquid and vapor.

Harmful in contact with skin or if inhaled.

May be harmful if swallowed.

Causes serious eye damage.

Causes skin irritation.

May cause an allergic skin reaction.

Suspected of causing cancer.

Toxic to aquatic life.

Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause irritation.

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

See Section 12 for environmental precautions.

China Page: 1/14

**Product name SIGMAZINC 109 HARDENER** 

## Section 2. Hazards identification

# Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 5
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2

AQUATIC HAZARD (ACUTE) - Category 2

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 35.9% Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 41.4%

## **GHS label elements**

Hazard pictograms









## Signal word

**Hazard statements** 

## Danger

: Flammable liquid and vapor.

Harmful in contact with skin or if inhaled.

May be harmful if swallowed. Causes serious eye damage.

Causes skin irritation.

May cause an allergic skin reaction. Suspected of causing cancer.

Toxic to aquatic life.

## **Precautionary statements**

**Prevention** 

# : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

## Response

: IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical 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 physician.

## 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.

China Page: 2/14

**Product name SIGMAZINC 109 HARDENER** 

## Section 2. Hazards identification

Physical and chemical

hazards

: Flammable liquid and vapor.

**Health hazards**: Harmful in contact with skin or if inhaled. May be harmful if swallowed. Causes

serious eye damage. Causes skin irritation. Prolonged or repeated contact may dry skin and cause irritation. Causes digestive tract burns. May cause an allergic skin

reaction. Suspected of causing cancer.

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 and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate

effects

Potential delayed effects : Not available.

Long term exposure

**Potential immediate** 

effects

: Not available.

: Not available.

Potential delayed effects : Not available.

**Environmental hazards**: Toxic to aquatic life.

Other hazards which do not result in classification

: Causes digestive tract burns. Prolonged or repeated contact may dry skin and cause

irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

**CAS** number/other identifiers

**CAS number** : Not applicable.

China Page: 3/14

2016

**Product name SIGMAZINC 109 HARDENER** 

# Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
xylene isomers mixture	40 - <70	1330-20-7
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	10 - <25	68410-23-1
ethylbenzene	1 - <10	100-41-4
2-methylpropan-1-ol	1 - <10	78-83-1
1-methoxy-2-propanol	1 - <10	107-98-2
3,6-diazaoctanethylenediamin	1 - <10	112-24-3
toluene	0.1 - <1	108-88-3

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 recognized skin cleanser. Do NOT use solvents or thinners.

**Ingestion**: If swallowed, seek medical advice immediately and show this container or label.

Keep person warm and at rest. Do NOT induce vomiting.

## Most important symptoms/effects, acute and delayed

## Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : Harmful if inhaled. May cause respiratory irritation.

**Skin contact**: Harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause

an allergic skin reaction.

Ingestion: May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. May be

fatal if swallowed and enters airways.

#### Over-exposure signs/symptoms

**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

China Page: 4/14

**Product name SIGMAZINC 109 HARDENER** 

## Section 4. First aid measures

Ingestion

: Adverse symptoms may include the following: stomach pains

#### Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments Protection of first-aiders**  No specific treatment.

: No action shall be taken involving any personal risk or without suitable training. If it is 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 thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

## **Extinguishing media**

Suitable extinguishing

media

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing** 

media

: Do not use water jet.

Specific hazards arising from the chemical

: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

**Hazardous thermal** decomposition products : Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

**Special protective actions** for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if 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.

**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, protective 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

> China Page: 5/14

**Product name SIGMAZINC 109 HARDENER** 

## Section 6. Accidental release measures

For emergency responders :

If specialized 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 spilled 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 materials for containment 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 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 spilled 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). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

> China Page: 6/14

**Product name SIGMAZINC 109 HARDENER** 

# Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

: Storage temperature: 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 oxidizing 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

# Section 8. Exposure controls/personal protection

#### **Control parameters**

## **Occupational exposure limits**

Ingredient name	<b>Exposure limits</b>
xylene isomers mixture	GBZ 2.1 (China, 4/2007).
	PC-STEL: 100 mg/m³ 15 minutes.
	PC-TWA: 50 mg/m <sup>3</sup> 8 hours.
ethylbenzene	GBZ 2.1 (China, 4/2007).
·	PC-STEL: 150 mg/m³ 15 minutes.
	PC-TWA: 100 mg/m <sup>3</sup> 8 hours.
2-methylpropan-1-ol	ACGIH TLV (United States, 3/2015).
	TWA: 152 mg/m <sup>3</sup> 8 hours.
	TWA: 50 ppm 8 hours.
1-methoxy-2-propanol	ACGIH TLV (United States, 3/2015).
	STEL: 369 mg/m³ 15 minutes.
	STEL: 100 ppm 15 minutes.
	TWA: 184 mg/m <sup>3</sup> 8 hours.
	TWA: 50 ppm 8 hours.
toluene	GBZ 2.1 (China, 4/2007). Absorbed
	through skin.
	PC-STEL: 100 mg/m³ 15 minutes.
	PC-TWA: 50 mg/m <sup>3</sup> 8 hours.

# Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

# Appropriate engineering 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, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

# **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 measures**

China Page: 7/14

Product code 00140773 Date of issue 13 September 2016

**Product name SIGMAZINC 109 HARDENER** 

# Section 8. Exposure controls/personal protection

**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 **Skin protection** 

: Chemical splash goggles and face shield.

**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

: butyl rubber

Body protection : Personal pr

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

**Appearance** 

Physical state : Liquid.

Color : Yellow.

Odor : Amine-like.

**Boiling point** : >37.78°C (>100°F)

Flash point : Closed cup: 26°C (78.8°F)

**Material supports** 

combustion.

Yes.

Lower and upper explosive (flammable) limits

: Lower: 0.9% Upper: 7.22%

Relative density : 0.91

**Solubility** : Insoluble in the following materials: cold water.

**Auto-ignition temperature** : 290°C (554°F) **Viscosity** : Not Applicable

China Page: 8/14

Version 6.01

**Product name SIGMAZINC 109 HARDENER** 

# Section 10. Stability 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:

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products

: Decomposition products may include the following materials: carbon monoxide,

carbon dioxide, smoke, oxides of nitrogen.

# Section 11. Toxicological information

## Information on toxicological effects

#### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
xylene isomers mixture	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LC50 Inhalation Vapor	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	4000 ppm	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	6500 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	2 g/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
1-methoxy-2-propanol	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
3,	LD50 Dermal	Rabbit	805 mg/kg	-
6-diazaoctanethylenediamin				
	LD50 Oral	Rat	2500 mg/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	636 mg/kg	-

## **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene isomers mixture	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				mg	

## **Sensitization**

Not available.

China Page: 9/14

2016

**Product name SIGMAZINC 109 HARDENER** 

# **Section 11. Toxicological information**

## **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
2-methylpropan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
1-methoxy-2-propanol toluene	Category 3 Category 3	Not applicable. Not applicable.	Narcotic effects Narcotic effects

## Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
1-methoxy-2-propanol	Category 2	Not determined	Not determined Not determined Not determined

## **Aspiration hazard**

Name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on the likely

routes of exposure

: Not available.

## Potential acute health effects

**Eye contact** : Causes serious eye damage.

Inhalation : Harmful if inhaled. May cause respiratory irritation.

**Skin contact**: Harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause

an allergic skin reaction.

Ingestion : May be harmful if swallowed. Corrosive to the digestive tract. Causes burns. May be

fatal if swallowed and enters airways.

## Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:

pain watering redness

Inhalation : No specific data.

China Page: 10/14

2016

**Product name SIGMAZINC 109 HARDENER** 

# Section 11. Toxicological information

**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 and also chronic effects from short and long term exposure

**Short term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects : Not available.

**Long term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General: May cause damage to organs through prolonged or repeated exposure. 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
 Mo known significant effects or critical hazards.
 Mutagenicity
 No known significant effects or critical hazards.
 Teratogenicity
 No known significant effects or critical hazards.
 Developmental effects
 No known significant effects or critical hazards.
 Fertility effects
 No known significant effects or critical hazards.

## **Numerical measures of toxicity**

## **Acute toxicity estimates**

Route	ATE value
<b>Ø</b> ral	4194.7 mg/kg
Dermal	1438.2 mg/kg
Inhalation (gases)	9661.2 ppm
Inhalation (vapors)	75.73 mg/l

#### Other information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the

China Page: 11/14

Product code 00140773

Date of issue 13 September 2016

Version 6.01

**Product name SIGMAZINC 109 HARDENER** 

# Section 11. Toxicological information

mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 3,6-diazaoctanethylenediamin. May produce an allergic reaction.

# **Section 12. Ecological information**

## **Toxicity**

Product/ingredient name	Result	Species	Exposure
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours
1-methoxy-2-propanol	Acute LC50 23300 mg/l Acute LC50 >4500 mg/l Fresh water	Daphnia Fish	48 hours 96 hours

## Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene isomers mixture ethylbenzene toluene	-	- - -	Readily Readily Readily

## **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
xylene isomers mixture	3.16	7.4 to 18.5	low
ethylbenzene	3.15	79.43	low
2-methylpropan-1-ol	0.76	-	low
3,	-1.66 to -1.4	-	low
6-diazaoctanethylenediamin			
toluene	2.73	8.32	low

## **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

# Section 13. Disposal considerations

China Page: 12/14

Version 6.01

**Product name SIGMAZINC 109 HARDENER** 

# Section 13. Disposal considerations

## **Disposal methods**

: The generation of waste should be avoided or minimized wherever possible. 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. Vapor 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

# 14. Transport information

	China	UN	IMDG	IATA
UN number	UN1263	UN1263	UN1263	UN1263
UN proper shipping name	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
Transport hazard class(es)	3	3	3	3
Packing group	III	III	III	III
Environmental hazards	No.	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

#### **Additional information**

: None identified. CN : None identified. UN : None identified. **IMDG IATA** : 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.

> China Page: 13/14

**Product name SIGMAZINC 109 HARDENER** 

# **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

**History** 

Date of issue/Date of

revision

: 7/25/2016

: 13 September 2016

Date of previous issue Version

: 6.01 EHS

**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

▼ 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.

China Page: 14/14