SAFETY DATA SHEET



Date of issue/Date of revision 7 June 2023 Version 13

Section 1. Identification	
Product name	: SF ZINC PRIMER HARDENER
Product code	: 00393158
Other means of identification	: Not available.
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.
Manufacturer <u>Emergency telephone</u> number	 PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272 (412) 434-4515 (U.S.) (514) 645-1320 (Canada)
	SETIQ Interior de la República: 800-00-214-00 (México) SETIQ Ciudad de México: (55) 5559-1588 (México)
Technical Phone Number	: 888-977-4762

Section 2. Hazards identification

OSHA/HCS status	 This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 7.4% (oral), 7.4% (dermal), 15.5% (inhalation)
GHS label elements	

Product name SF ZINC PRIMER HARDENER

Section 2. Hazards identification

Hazard pictograms	
Signal word	: Danger
Hazard statements	 Highly flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. (hearing organs)
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. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response	: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF ON SKIN: 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.
Storage	: Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/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. Wash thoroughly after handling. Emits toxic fumes when heated.
Hazards not otherwise classified	: Prolonged or repeated contact may dry skin and cause irritation.

Product name SF ZINC PRIMER HARDENER

Section 3. Composition/information on ingredients

- Substance/mixture Product name
- : Mixture

: SF ZINC PRIMER HARDENER

Ingredient name	%	CAS number
toluene	≥20 - ≤50	108-88-3
xylene	≥20 - ≤32	1330-20-7
2-methylpropan-1-ol	≥10 - ≤16	78-83-1
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil	≥5.0 - ≤8.5	68082-29-1
fatty acids and triethylenetetramine		
ethylbenzene	≥1.0 - ≤5.0	100-41-4
2,4,6-tris(dimethylaminomethyl)phenol	≤1.8	90-72-2

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

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/et	ects, acute and delayed
Potential acute health effec	<u>s</u>
Eye contact	: Causes serious eye damage.
Inhalation	: Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system (CNS) depression.
Over-exposure signs/symp	<u>oms</u>
Eye contact	: Adverse symptoms may include the following: pain watering redness

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Section 4. First aid measures

Inhalation	: Adverse symptoms may include the following:
	respiratory tract irritation
	coughing
	nausea or vomiting
	headache
	drowsiness/fatigue
	dizziness/vertigo
	unconsciousness
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Skin contact	: Adverse symptoms may include the following:
	pain or irritation
	redness
	dryness
	cracking
	blistering may occur
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Ingestion	: Adverse symptoms may include the following:
	stomach pains
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Indication of immodiat	o modical attention and enocial treatment needed, if necessa

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.
Specific treatments	The exposed person may need to be kept under medical surveillance for 48 hours. No specific treatment.
Protection of first-aiders	: 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 ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Highly 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. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

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Section 5. Fire-fighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds
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

entering. Do not touch No flares, smoking or fla adequate ventilation. W	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.	
For emergency responders : If specialized clothing is	required to deal with the spillage, take note of any information in d unsuitable materials. See also the information in "For non-	
	d material and runoff and contact with soil, waterways, drains relevant authorities if the product has caused environmental ways, soil or air).	
lethods and materials for containment and cleaning u	D	
explosion-proof equipm or if water-insoluble, ab	Move containers from spill area. Use spark-proof tools and ent. Dilute with water and mop up if water-soluble. Alternatively sorb with an inert dry material and place in an appropriate waste pose of via a licensed waste disposal contractor.	
explosion-proof equipm water courses, baseme plant or proceed as follo absorbent material e.g. container for disposal a licensed waste disposal	Move containers from spill area. Use spark-proof tools and ent. Approach release from upwind. Prevent entry into sewers ints or confined areas. Wash spillages into an effluent treatmen ws. Contain and collect spillage with non-combustible, sand, earth, vermiculite or diatomaceous earth and place in ccording to local regulations (see Section 13). Dispose of via a contractor. Contaminated absorbent material may pose the led product. Note: see Section 1 for emergency contact 13 for waste disposal.	
Iethods and materials for containment and cleaning uSmall spill: Stop leak if without risk. explosion-proof equipm or if water-insoluble, abs disposal container. Dis isLarge spill: Stop leak if without risk. explosion-proof equipm water courses, baseme plant or proceed as follow	Move containers from spill area. Use spark-proof tools and ent. Dilute with water and mop up if water-soluble. Alternative sorb with an inert dry material and place in an appropriate wast bose of via a licensed waste disposal contractor. Move containers from spill area. Use spark-proof tools and ent. Approach release from upwind. Prevent entry into sewers ints or confined areas. Wash spillages into an effluent treatment www. Contain and collect spillage with non-combustible,	

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Section 7. Handling and storage

Precautions for safe handling

Protective measures	: 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. Avoid exposure during pregnancy. 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 vapor or mist. Do not ingest. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Special precautions	: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
Advice on general occupational hygiene	: 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. See also Section 8 for additional information on hygiene measures.
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 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	Exposure limits
toluene	OSHA PEL Z2 (United States, 2/2013).
	AMP: 500 ppm 10 minutes.
	CEIL: 300 ppm
	TWA: 200 ppm 8 hours.
	ACGIH TLV (United States, 1/2022).
	Ototoxicant.
	TWA: 20 ppm 8 hours.
xylene	ACGIH TLV (United States, 1/2022). [xylene]
	STEL: 651 mg/m ³ 15 minutes.
	TWA: 434 mg/m ³ 8 hours.
	TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 5/2018).
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Section 8. Exposure controls/personal protection

	2-methylpropan-1-ol	[Xylenes] TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 1/2022). TWA: 152 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. OSHA PEL (United States, 5/2018).
	Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tal oil fatty acids and triethylenetetramine	TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours.
	ethylbenzene	ACGIH TLV (United States, 1/2022). Ototoxicant. TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
	2,4,6-tris(dimethylaminomethyl)phenol	None.
	Key to abbreviations	
	A = Acceptable Maximum Peak ACGIH = American Conference of Governmental Industrial Hygienists. C = Ceiling Limit F = Fume IPEL = Internal Permissible Exposure Limit OSHA = Occupational Safety and Health Administration. R = Respirable Z = OCEP 1040 1200 Subset Z	S= Potential skin absorptionSR= Respiratory sensitizationSS= Skin sensitizationSTEL= Short term Exposure limit valuesTD= Total dustTLV= Threshold Limit ValueTWA= Time Weighted Average
C	Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances onsult local authorities for acceptable exposure limits.	
	Recommended monitoring : Reference should be made to appropriate the state of the s	riate monitoring standards. Reference to national the determination of hazardous substances will
	ontrols other engineering controls to keep wo recommended or statutory limits. The	se process enclosures, local exhaust ventilation or rker exposure to airborne contaminants below any e engineering controls also need to keep gas, ny lower explosive limits. Use explosion-proof
	nvironmental exposure : Emissions from ventilation or work pro ontrols : they comply with the requirements of e	ocess equipment should be checked to ensure environmental protection legislation. In some neering modifications to the process equipment s to acceptable levels.
In	dividual protection measures	
I	eating, smoking and using the lavator Appropriate techniques should be use Contaminated work clothing should no	bughly after handling chemical products, before y and at the end of the working period. ed to remove potentially contaminated clothing. of be allowed out of the workplace. Wash Ensure that eyewash stations and safety location.
	Eye/face protection : Chemical splash goggles and face shi	ield.
5	Skin protection	
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Section 8. Exposure controls/personal 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	: butyl rubber
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 antistatic 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. The respiratory protection shall be in accordance to 29 CFR 1910.134.

Section 9. Physical and chemical properties

Appearance

Solubility(ies)	cold water	Not soluble
	Media	Result
Density(lbs / gal)	: 7.43	
Relative density	: 0.89	
Vapor density	: Not available.	
Vapor pressure	: Not available.	
Evaporation rate	: Not available.	
Lower and upper explosive (flammable) limits	: Not available.	
Flammability	: Not available.	
Decomposition temperature	: Not available.	
Auto-ignition temperature	: Not available.	
Flash point	: Closed cup: 12°C (53.6°	°F)
Boiling point	: >37.78°C (>100°F)	
Melting point	: Not available.	
рН	: Not applicable.	
Odor threshold	: Not available.	
Odor	: Characteristic.	
Color	: Colorless.	
Physical state	: Liquid.	

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Section 9. Physical and chemical properties

Partition coefficient: n- octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
Volatility	: 85% (v/v), 83.5% (w/w)
% Solid. (w/w)	: 16.5

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ing Chemical stability : The product is stable.	gredients.
Chemical stability : The product is stable.	
Possibility of hazardous : Under normal conditions of storage and use, hazardous reactions will not reactions	occur.
Conditions to avoid : When exposed to high temperatures may produce hazardous decomposi Refer to protective measures listed in sections 7 and 8.	tion products.
Incompatible materials : Keep away from the following materials to prevent strong exothermic read oxidizing agents, strong alkalis, strong acids.	ctions:
Hazardous decomposition products : Evolves hydrogen on contact with water. Depending on conditions, decor products may include the following materials: carbon oxides nitrogen oxi halogenated compounds	

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
<u>, , , , , , , , , , , , , , , , , , , </u>	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
Fatty acids, C18-unsatd.,	LD50 Dermal	Rat	>2000 mg/kg	-
dimers, oligomeric reaction			00	
products with tall-oil fatty				
acids and				
triethylenetetramine				
,	LD50 Oral	Rat	>2000 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
,	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
2,4,6-tris	LD50 Dermal	Rabbit	1.28 g/kg	-
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Section 11. Toxicological information

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(dimethylaminomethyl)phenol				
	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Irritant	Human	-	-	-
2,4,6-tris (dimethylaminomethyl)phenol	Skin - Visible necrosis	Rabbit	-	4 hours	7 days

Conclusion/Summary

Skin : There	are no data available on the mixture itself.
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: There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Eyes

Product/ingredient name	Route of exposure	SI	pecies	Result
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	skin	M	ouse	Sensitizing
Conclusion/Summary				
Skin	: There are	e no data a	vailable on the mixture itself.	
Respiratory	: There are	e no data a	vailable on the mixture itself.	
<u>Mutagenicity</u>				
Conclusion/Summary	: There are	e no data a	vailable on the mixture itself.	
Carcinogenicity				
Conclusion/Summary	: There are	e no data a	vailable on the mixture itself.	
Classification				
Product/ingredient name	OSHA	IARC	NTP	
toluene	-	3	-	
xylene	-	3	-	
ethylbenzene	-	2B	-	

Carcinogen Classification code:

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Section 11. Toxicological information

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself. **Specific target organ toxicity (single exposure)**

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

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
toluene	Category 2	-	-
ethylbenzene	Category 2		hearing organs

Target organs

: Contains material which causes damage to the following organs: brain. Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver, heart, upper respiratory tract, skin, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact Inhalation	 Causes serious eye damage. Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: Can cause central nervous system (CNS) depression.
Over-exposure signs/symp	<u>toms</u>
Eye contact	: Adverse symptoms may include the following: pain watering redness

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Section 11. Toxicological information

Inhalation	: Adverse symptoms may include the following: respiratory tract irritation
	coughing
	nausea or vomiting headache
	drowsiness/fatigue
	dizziness/vertigo
	unconsciousness
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Skin contact	: Adverse symptoms may include the following:
	pain or irritation redness
	dryness
	cracking
	blistering may occur
	reduced fetal weight
	increase in fetal deaths
	skeletal malformations
Ingestion	: Adverse symptoms may include the following:
	stomach pains
	reduced fetal weight increase in fetal deaths
	skeletal malformations
Delayed and immediate effect	ts and also chronic effects from short and long term exposure
Conclusion/Summary	: There are no data available on the mixture itself. Exposure to component solvent vapor
Conclusion/Summary	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. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. 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.
<u>Short term exposure</u>	
Potential immediate effects	: There are no data available on the mixture itself.
Potential delayed effects	: There are no data available on the mixture itself.
Long term exposure	
Potential immediate effects	: There are no data available on the mixture itself.
Potential delayed effects	: There are no data available on the mixture itself.
Potential chronic health effe	ects

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Section 11. Toxicological information

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	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/ I)
SF ZINC PRIMER HARDENER toluene xylene 2-methylpropan-1-ol Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine ethylbenzene 2,4,6-tris(dimethylaminomethyl)phenol	6460.4 5580 4300 2830 2500 3500 1200	4212.6 8390 1700 2460 2500 17800 1280	N/A N/A N/A N/A N/A N/A	33.4 49 11 24.6 N/A 17.8 N/A	4.3 N/A 1.5 N/A N/A 1.5 N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-methylpropan-1-ol Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	Acute EC50 1100 mg/l EC10 1.78 mg/l	Daphnia Algae	48 hours 72 hours
ethylbenzene 2,4,6-tris (dimethylaminomethyl)phenol	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water Acute LC50 175 mg/l	Daphnia Daphnia - Ceriodaphnia dubia Fish	48 hours - 96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethylbenzene	-	79 % - Readily - 10 days	-	-

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Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily
xylene	-	-	Readily
Fatty acids, C18-unsatd.,	-	-	Not readily
dimers, oligomeric reaction products with tall-oil fatty			
acids and triethylenetetramine			
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
toluene	2.73	8.32	low
xylene	3.12	7.4 to 18.5	low
2-methylpropan-1-ol	1	-	low
ethylbenzene	3.6	79.43	low
2,4,6-tris (dimethylaminomethyl)phenol	0.219	-	low

Mobility in soil

Soil/water partition coefficient (Koc) : Not available.

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.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

Product name SF ZINC PRIMER HARDENER

14. Transport information

	DOT	IMDG	IATA
UN number	<mark>₩</mark> N1263	₩ N1263	V N1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	Ш	11	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	398.8	Not applicable.	Not applicable.
RQ substances	(xylene, toluene)	Not applicable.	Not applicable.

Additional information

DOT	: Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
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

United States

United States inventory (TSCA 8b) : All components are active or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification	: FLAMMABLE LIQUIDS - Category 2
	ACUTE TOXICITY (inhalation) - Category 4
	SKIN IRRITATION - Category 2
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	CARCINOGENICITY - Category 2
	TOXIC TO REPRODUCTION - Category 2
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

United States Page: 15/17

Product name SF ZINC PRIMER HARDENER

Section 15. Regulatory information

irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 HNOC - Defatting irritant

Composition/information on ingredients

Name	%	Classification
toluene	≥20 - ≤50	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
xylene	≥20 - ≤32	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
2-methylpropan-1-ol	≥10 - ≤16	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine	≥5.0 - ≤8.5	SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1A
ethylbenzene	≥1.0 - ≤5.0	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant
2,4,6-tris(dimethylaminomethyl) phenol	≤1.8	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 SKIN CORROSION - Category 1C SERIOUS EYE DAMAGE - Category 1

SARA 313

Chemical name

CAS number Concentration

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Version 13

Product name SF ZINC PRIMER HARDENER

Section 15. Regulatory information

Supplier notification

: toluene	108-88-3	30 - 60
xylene	1330-20-7	10 - 30
ethylbenzene	100-41-4	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Asso	ociation (U.S.A.)	
Health : 3 Flammab	pility : 3 Instability : 0	
Date of previous issue	: 11/20/2022	
Organization that prepared the SDS	: EHS	
Key to abbreviations	AtterAtterAtterAtterBCF = Bioconcentration FactorGHS = Globally Harmonized System of Classification and Labelling of ChemicalsIATA = International Air Transport AssociationIBC = Internediate Bulk ContainerIMDG = International Maritime Dangerous GoodsLogPow = logarithm of the octanol/water partition coefficientMARPOL = International Convention for the Prevention of Pollution From Ships, 1973as modified by the Protocol of 1978. ("Marpol" = marine pollution)N/A = Not availableSGG = Segregation GroupUN = United Nations	

Indicates information that has changed from previously issued version.

Disclaimer

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.