RPS-406 *Zinc-Rich Primer*
SAFETY DATA SHEET

1. Identification

Product Identification

Product Identifier: **RPS-406**
Recommended Use: RPS-406 is a zinc-rich primer for use for the prevention of steel corrosion.
Use Restrictions: For industrial use only. To ensure proper installation, use according to package directions. Complete application instructions can be found in Simpson Strong-Tie catalogs or online at strongtie.com.

Company Identification

Company: Simpson Strong-Tie Company Inc.
Address: 5956 W. Las Positas Blvd.
Pleasanton, CA 94588, USA
Phone: 1-800-999-5099
Website: www.strongtie.com
Emergency: 1-800-535-5053 (US/Canada)
1-352-323-3500 (International)

For most current SDS, please visit our website at **www.strongtie.com/sds**

2. Hazard Identification

General Information

RPS-406 Zinc-Rich Primer is a single component product. It is used for maintaining concrete reinforcements by providing corrosion protection to steel reinforcements. It has been assessed according to the Globally Harmonized System (GHS). The product can be assumed to carry its hazards until the product has fully dried. The final, dried product is gray in color and can be considered nonhazardous. This Safety Data Sheet covers hazards and responses for the safe use and handling of this product.

GHS Classification

Classification according to HazCom2012 (GHS)

Physical Hazards:	Flammable Liquids	Category 3	H226: Flammable liquid and vapor
Health Hazards:	Serious Eye Damage/Irritation	Category 2	H319: Causes serious eye irritation
	Sensitization, Skin	Category 1	H317: May cause an allergic skin reaction
Environmental Hazards:	Acute Environmental Hazard	Category 1	H400: Very toxic to aquatic life
	Chronic Environmental Hazard	Category 1	H410: Very toxic to aquatic life with long lasting effects

Main Symptoms: Irritant effects. May cause rash/allergic reaction to the skin. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision.

GHS Label Elements

Flammable | Exclamation Point | Environmental Hazard

Contains: Zinc, Zinc oxide, Epoxy ester, Petroleum distillates
Signal Word: **WARNING!**
Hazard Statements:
H226: Flammable liquid and vapor.
H319 : Causes serious eye irritation.
H317 : May cause an allergic skin reaction.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements:
Prevention:
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P333: Keep container tightly closed.
P235: Keep cool.

	P240:	Ground and bond container and receiving equipment.
	P241:	Use explosion proof electrical/ventilation/lighting equipment.
	P242:	Use non-sparking tools.
	P243:	Take action to prevent static discharge.
	P261:	Avoid breathing mist/fumes/vapors.
	P264:	Wash hands thoroughly after handling.
	P272:	Contaminated clothing should not be allowed out of the workplace.
	P273:	Avoid release to the environment.
	P280:	Wear protective gloves/clothing/eye protection/face protection.
Response:	P303+P361+P353:	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
	P332+P313:	If skin irritation or rash occurs: Get medical advice/attention.
	P363:	Wash contaminated clothing before reuse.
	P305+P351+P338:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313:	If eye irritation persists: Get medical advice/attention.
	P314:	Get medical advice/attention if you feel unwell.
	P370+P378:	In case of fire: Use foam, carbon dioxide, dry powder, or water fog for extinction.
	P391:	Collect spillage.
Storage:	P403+P235:	Store in a well-ventilated place. Keep cool.
	P405:	Store locked up.
Disposal:	P501:	Dispose of contents/container in accordance with local/regional regulations.

Supplemental Label Information: None known.

Hazards Not Otherwise Classified (HNOC)

None known.

3. Composition Information

General Information

This product is a mixture. Hazardous ingredients for each component are listed below. May include other nonhazardous ingredients. May include other trace ingredients, see Section 15.

List of abbreviations and symbols:
Classification: Globally Harmonized System Classifications
The full text for H-phrases is displayed in section 16. All concentrations are in percent by weight unless otherwise noted.

Composition – All concentrations are in percent by weight unless otherwise indicated.

Chemical Name	Weight %	CAS Number	EC Number
Zinc **Classifications:** Aquatic 1: H400+H410	40-60	7440-66-6	231-175-3
Zinc Oxide **Classifications:** Aquatic 1: H400+H410	10-20	1314-13-2	215-222-5
Naphtha (petroleum), hydrotreated, heavy **Classifications:** Flam. Liquid 3: H226, Asp. Tox. 1: H304	1-10	64742-48-9	265-50-3
Epoxy Ester **Classifications:** Flam. Liquid 3: H226	5-15	N/A	N/A
Distillates (petroleum), hydrotreated, light **Classifications:** Flam. Liquid 3: H226, Asp. Tox. 1: H304	1-10	64742-47-8	265-149-8
Stoddard Solvent **Classifications:** Asp. Tox. 1: H304	1-10	8052-41-3	232-489-3

4. First-Aid Measures

General Information

Provide general supportive measures and treat symptomatically. Symptoms may be delayed. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

Routes of Exposure

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. Remove contact lenses if present and easy to do. If you experience redness, burning, blurred vision, or swelling **consult a physician immediately.**

Skin Contact: Remove contaminated clothing and product, immediately wash affected area with soap and water. Do not apply greases or ointments. If rash or irritation occurs **consult a physician.**

Ingestion: Rinse mouth immediately. Do not induce vomiting. **Consult a physician immediately.**

Inhalation: Remove patient to fresh air. Give oxygen or artificial respiration if needed. If patient continues to experience difficulty breathing, **consult a physician.**

Most Important Symptoms

Irritant effects. Symptoms include itching, burning, redness and tearing. Rash and/or allergic skin reaction.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO_2).

Additional Information: None known.

Hazards during Fire-Fighting: Hazardous decomposition products may occur when materials polymerize at temperatures above 500°F (260°C). Do not allow run-off from fire-fighting to enter drains or water courses.

Fire-Fighting Procedures: Use standard fire-fighting procedures and consider the hazards of other involved materials. In case of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn. Move containers from fire area if you can do so without risk. Cool containers with flooding quantities of water until well after fire is out. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. Accidental Release Measures

Personal Precautions

Non-emergency personnel: Use cautious judgment when cleaning up a spill. Keep unnecessary personnel away. Eliminate all ignition sources. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Emergency personnel: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protection.

Clean-Up Methods

Small Spills: Soak up with non-reactive adsorbent material (clay, sand, cloth). Place in leak proof container, seal tightly for proper disposal. Clean surface thoroughly to remove residual contamination.

Large Spills: Approach suspected leak areas with caution. Shut-off leaks, if without personal risk, to stop the flow of material. Create a dike or trench to contain material. Soak up with non- reactive adsorbent material (clay, sand, cloth). Place in leak proof container, seal tightly for proper disposal. Following product recovery, flush area with water. Prevent entry into waterways, sewer, basements or confined areas.

Cured Material: Chip or grind off surface. If you are grinding or cutting cured product, ensure good work practice and use of personal protective equipment as needed to control exposure to respirable dust. Take precautionary measures; do not allow dust to build up.

Environmental Precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Handling

Mechanical ventilation or local exhaust ventilation is recommended. Keep away from open flames, hot surfaces and sources of ignition. Wear appropriate personal protective equipment. When using, do not eat, drink or smoke. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Handle in a well-ventilated area. Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. To obtain optimal performance from Simpson Strong-Tie products, the products must be installed and used in accordance with the installation instructions and design limits provided by Simpson Strong-Tie.

Storage

Store in a tightly closed container away from incompatible materials (See Section 10 of the SDS). Store locked up. Store in a cool, dry place out of direct sunlight, between 40-95°F (4-35°C). Store in a well-ventilated place. Protect against physical damage. Keep away from heat and sources of ignition. Keep out of reach of children.

8. Exposure Controls / Personal Protection

Personal Protective Equipment

Protective Measure: Wear appropriate personal protective equipment.
Eye Protection: Wear chemical splash goggles or safety glasses with side shield.
Hand Protection: Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.
Skin and Body Protection: Wear long sleeve shirt/long pants and other clothing as required to minimize contact. In case of dust production, dust-proof clothing.
Respirator Protection: The use of a respirator is not required during normal product use. Use a NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations are expected to exceed exposure limits.
General Hygiene: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Engineering Controls

Mechanical ventilation or local exhaust ventilation is recommended. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and emergency shower.

Exposure Limits

Component	OSHA (PEL)	ACGIH (TLV)	NIOSH Pocket Guide
Zinc (CAS 7440-66-6)	5 mg/m^3 (fume)	5 mg/m^3 (fume)	N/E
Zinc Oxide (CAS 1314-13-2)	5 mg/m^3 (fume/respirable) 15 mg/m^3 (total)	2 mg/m^3 (TWA) 10 mg/m^3 (STEL)	N/E

9. Physical and Chemical Properties

Physical State:	Liquid	**Freezing/Melting Point:**	N/E
Form:	Liquid	**Boiling Point:**	N/E
Color:	Gray	**Flash Point:**	108°F (42°C)
Odor:	Hydrocarbon Odor	**Evaporation Rate:**	N/E
Odor Threshold:	N/E	**Specific Gravity:**	2.2
pH:	N/E	**VOC:**	356 g/L
Flammability:	N/E	**U/L Flammability:**	N/E
Vapor Pressure:	N/E	**Vapor Density:**	N/E
Solubility:	Slight	**Kow:**	N/E
Decomposition:	N/E	**Viscosity:**	N/E

10. Stability and Reactivity

Reactivity: Stable and non-reactive under normal conditions of use and storage.
Chemical Stability: Stable and non-reactive under normal conditions of use and storage.
Condition to Avoid: High heat and open flame.
Substances to Avoid: Oxidizing agents, strong acids, organic bases, and amines. May form phosphine and hydrogen gas on contact with strong acids.
Hazardous Reactions: The product is stable if stored and handled as prescribed/indicated. Hazardous polymerization can occur when exposed to excessive heat.
Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, acid oxides of phosphorus, aldehydes, and other organic compounds.

11. Toxicological Information

Likely Routes of Exposure

Ingestion: Expected to be a low ingestion hazard.

Inhalation: Irritation to nose and respiratory tract.
Skin contact: Causes skin irritation. May cause sensitization by skin contact.
Eye contact: Causes serious eye irritation.
Symptoms: Irritant effects. Rash/allergic reaction to the skin. Symptoms include redness, itching, burning, tearing, swelling, and blurred vision.

Information on Toxicological Effects

Acute Effects

Toxicity: Not expected to be acutely toxic. Occupational exposure to the substance or mixture may cause adverse effects.

Component		Estimate
RPS-406 Toxicity Estimate		
	Acute, *Oral,* LD50	>9000
	Acute, *Dermal***,** LD50	>3000
	Acute, *Inhalation,* LC50	5.43

Skin corrosion/irritation: Causes skin irritation.
Eye damage/eye irritation: Causes serious eye irritation.
Respiratory sensitization: Not a respiratory sensitizer.
Skin sensitization: May cause sensitization by skin contact.
Aspiration hazard: No data available.
Specific target organ toxicity
Single exposure: No data available.

Chronic Effects

Germ cell mutagenicity: No data available.
Carcinogenicity: No data available.
Reproductive toxicity: No data available.
Specific target organ toxicity
Repeated exposure: No data available.

Further Information

Toxicological, ecotoxicological, physical, and chemical properties may not have been fully investigated. Hazard data above is estimated based on best available information. Some workers with certain pre-existing medical conditions such as: asthma, allergies, or impaired pulmonary and/or liver functions, or who may be particularly susceptible to this material, may be affected by exposure to this material.

12. Ecological Information

General Information

Information given is based on data on the components and the ecotoxicology of similar products. This material is classified as very toxic to the aquatic environment with long lasting effects. Information given is based on component data and the ecotoxicity of similar materials. Avoid release to the environment.

Supporting Data

Component		Estimate
RPS-406 Toxicity Estimate		
	Aquatic, Fish, LC50	1.8 mg/l 96 Hours
	Aquatic, Crustacea, EC50	0.076 mg/l 48 Hours

Persistence and degradability: Not readily biodegradable.
Bioaccumulative potential: No data available for this product.
Mobility in soil: No data available.

13. Disposal Considerations

Waste Disposal of Substance: Do not allow material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Container Disposal: Empty containers or liners may retain some product residues; follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal of Cured Product: Chip or grind off surface. Solid material does not need special disposal consideration.

14. Transportation Information

UN number: UN1263
UN proper shipping name: PAINT RELATED MATERIAL, 3, III
Precautions: Flammable, Marine Pollutant
Required Labels: 3 (9)
ERG Code (IATA): 3L
EmS (IMDG): F-E, S-E

Additional Information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

This information does not cover all specific regulatory or operational requirements of this product. The classifications for transportation may vary by container volume or different regional or national regulations.

15. Regulatory Information

United States

Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):
Zinc (CAS 7440-66-6) LISTED

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.
CERCLA Hazardous Substance List (40 CFR 302.4) :
Zinc (CAS 7440-66-6) LISTED
Zinc Oxide (CAS 1314-13-2) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories: Immediate	Delayed	Fire	Pressure	Reactivity
Yes	Yes	Yes	No	No

SARA 302 Extremely hazardous substance: No
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting):

Component	CAS	% In Blend (approx.)
Zinc	7440-66-6	30-50
Zinc Oxide	1314-13-2	15-30
Diethylene Glycol Methyl Ether	111-77-3	< 0.1
Naphthenic acid, cobalt salt	61789-51-3	< 0.1
n-Butyl Alcohol	71-36-3	< 0.1

California Proposition 65:
WARNING: This product can expose you to chemicals which are known to the State of California to cause cancer, reproductive harm, or other birth defects. For more information, go to www.P65Warnings.ca.gov.

Carcinogen / Reproductive Toxin / Mutagen Information

Component	% In Blend (approx.)	IARC Monographs	NTP	ACGIH	Other
Quartz (CAS 14808-60-7)	Trace	1	KNOWN	A2	CA65 (Carcinogenic)
Naphthalene (CAS 91-20-3)	Trace	2B	ANTICIPATED	---	CA65 (Carcinogenic)
Benzene (CAS 71-43-2)	Trace	1	KNOWN	A1	CA65 (Carcinogenic)
Ethylbenzene (CAS 100-41-4)	Trace	2B	---	A3	CA65 (Carcinogenic)

IARC: 1- Carcinogenic 2- Possibly carcinogenic 3 – Not classifiable as to carcinogenicity 4 – Probably not carcinogenic
NTP: Known to be human carcinogen or Reasonably anticipated to be a human carcinogen
ACGIH – A1 – Confirmed carcinogen A2 – Suspected carcinogen A3 – Animal carcinogen A4 – Not classified A5 – Not suspected
CA65 – California Prop 65

Canada

This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

International

The product is classified and labeled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.

This product is not subject to or not applicable for any of the following International Regulations; **Stockholm Convention, Rotterdam Convention, Kyoto Protocol, Montreal Protocol, Basel Convention.**

International Inventories

Australia	One or more components of this product are not listed on the Australian Inventory of Chemical Substances (AICS).
Canada	All components of this product are included on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL).
China	One or more components of this product are not listed on the Inventory of Existing Chemical Substances in China (IECSC)
Europe	One or more components of this product have an unknown status on the European Inventory of Existing Commercial Chemical Substances (EINECS). Contact Simpson Strong-Tie Environmental Health and Safety if the status of this product on the inventory is desired.
Japan	One or more components in this product are not listed on the Inventory of Existing and New Chemical Substances (ENCS).
Korea	All components of this product are included on the Existing Chemicals List (ECL)
New Zealand	One or more components of this product are not included on the New Zealand Inventory.
Philippines	One or more components in this product are not listed in the Philippine Inventory of Chemicals and Chemical Substances (PICCS).
United States & Puerto Rico	All components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory or are not required to be listed.

16. Other Information

Date Prepared or Revised: November 2021
Supersedes: February 2020
Contact Simpson Strong-Tie Environmental Health and Safety at EHS@strongtie.com.

Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS No.:	Chemical Abstract Service Registry Number
CERCLA:	Comprehensive Environmental Response, Compensation and Liability Act (U.S. EPA)
HPR:	Hazardous Product Regulations (Canada)
DOT:	Department of Transportation (U.S.)
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods code
NIOSH:	National Institute of Occupational Safety and Health (U.S.)
NFPA:	National Fire Protection Association (US)
NTP:	National Toxicology Program (US)
PEL:	Permissible Exposure Limit
SARA:	Superfund Amendments and Reauthorization Act (U.S. EPA)
STEL:	Short Term Exposure Limit (15 minute Time Weighted Average)
STOT:	Specific Target Organ Toxicity (GHS Classification)

TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act (U.S.)
TWA:	Time Weighted Average (exposure for 8-hour workday)
VOC:	Volatile Organic Compounds
WHMIS:	Canadian Workplace Hazardous Materials Information System

Full Text of H – Phrases Under Section 3

H304: May be fatal if swallowed and enters airways.

Disclaimer

Safety Data Sheet (SDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this SDS. This SDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is given. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

Internal

FOR INTERNAL USE ONLY

RPS-406:
XCOM2