Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 Issue date: 6/14/2017 Revision date: 11/9/2022 Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : PENN UNION 12C

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Corrosion inhibitor

1.3. Supplier

Supplier

CONTINENTAL PRODUCTS, INC. #6 Midwest Drive, P.O. Box 338 Pacific, MO, 63069 USA T 636-257-4449 kdb@contprod.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Zinc oxide (ZnO)	CAS-No.: 1314-13-2	1 - 5

^{*}Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Not a normal route of exposure. If symptoms develop, remove to fresh air. Get medical attention

if condition worsens.

First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation

persists

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. This compound contains abrasive particles. If eye irritation

persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious

person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Not a normal route of exposure.

Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, and cracking of the skin.

: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear

production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and

diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

Symptoms/effects after eye contact

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry chemical. Foam. Carbon dioxide.

Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory

protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

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unnecessary and unprotected personnel.

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6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material),

then place in suitable container. Do not flush into surface water or sewer system. Wear

recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not

swallow. Handle and open container with care. When using do not eat, drink or smoke.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Zinc oxide (ZnO) (1314-13-2)		
USA - ACGIH - Occupational Exposure Limits		
Local name	Zinc oxide	
ACGIH OEL TWA	2 mg/m³ (respirable particulate matter)	
ACGIH OEL STEL	10 mg/m³ (respirable particulate matter)	
Remark (ACGIH)	TLV® Basis: Metal fume fever	
Regulatory reference	ACGIH 2021	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	5 mg/m³ (dust and fume)	
NIOSH REL STEL	10 mg/m³ (fume)	
NIOSH REL C	15 mg/m³ (dust)	

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves

Eye protection:

Safety glasses or goggles are recommended when using product.

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Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

None necessary under normal conditions of use. Use only in well-ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Paste. Thick grease.

Colour : Grey

Odour : No data available Odour threshold : No data available рΗ : No data available Melting point : No data available Freezing point No data available Boiling point No data available Flash point : > 260 °C (> 500 °F) Relative evaporation rate (butylacetate=1) : No data available : Not flammable. Flammability (solid, gas) Vapour pressure : No data available Relative vapour density at 20°C : No data available Relative density : No data available : No data available Solubility Partition coefficient n-octanol/water No data available No data available Auto-ignition temperature No data available Decomposition temperature Viscosity, kinematic No data available Viscosity, dynamic No data available **Explosive limits** No data available : No data available Explosive properties Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified.

Zinc oxide (ZnO) (1314-13-2)		
LD50 oral rat	> 5000 mg/kg	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LC50 inhalation rat	> 5700 mg/m³ (Exposure time: 4 h)	

Skin corrosion/irritation : Not classified.

Zinc oxide	(ZnO) ((1314-13-2)
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pH 6.95 (American Process)

Serious eye damage/irritation : Not classified.

pH 6.95 (American Process)

Not classified. Respiratory or skin sensitisation Germ cell mutagenicity Not classified. Carcinogenicity Not classified. Not classified. Reproductive toxicity STOT-single exposure Not classified. STOT-repeated exposure : Not classified. Aspiration hazard Not classified. Viscosity, kinematic No data available

Symptoms/effects after inhalation : Not a normal route of exposure.

Symptoms/effects after skin contact
: May cause skin irritation. Symptoms may include redness, drying, and cracking of the skin.
Symptoms/effects after eye contact
: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear

production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and

diarrhea.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Zinc oxide (ZnO) (1314-13-2)		
LC50 - Fish [1]	1.55 mg/l (Exposure time: 96 h - Species: Danio rerio [static])	

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12.2. Persistence and degradability

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Persistence and degradability Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

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Other information : None.

Prepared by : Nexreg Compliance Inc.

www.Nexreg.com

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