

Conforms: GHS (rev 6) (2015)

(This Safety Data Sheet conforms to the requirements of the Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012.) - United States

Date of issue/ Date of revision : 08/07/2020
Date of previous issue : 08/22/2018
Version : 2.0



SAFETY DATA SHEET

PROCOTE ZN

Section 1. Identification

GHS product identifier : PROCOTE ZN
Product type : Liquid (Suspension)
Product code : PYP1JL

Uses

Area of application : Professional applications
Material uses : Fertilizers.

Supplier

Supplier's details : Yara North America, Inc.

Address

Street : 100 North Tampa Street, Suite 3200
Postal code : 33602
City : TAMPA
Country : United States

Telephone number : +1 813 222 5700
Fax no. : +1 813 875 5735
e-mail address of person responsible for this SDS : yna-hesq@yara.com
Emergency telephone number (with hours of operation) : US: Chemtrec 24-hours Emergency Response: 1-800-424-9300
Canada: 24 Hour Emergency Service, Canutec 613-996-6666

National advisory body/Poison Center

Name : The National Poisons Emergency number
Telephone number : 1 800 222 1222

Section 2. Hazards identification

OSHA/HCS status : This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture. : AQUATIC HAZARD (ACUTE) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1
AQUATIC HAZARD (LONG-TERM) - Category 1

GHS label elements**Hazard pictograms****Signal word**

: Warning

Hazard statements

: H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements**Prevention
Response**: P273 Avoid release to the environment.
: P391 Collect spillage.**Disposal**

: P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise
classified**

: None.

Section 3. Composition/information on ingredients**Substance/mixture** : Mixture

| Ingredient name | CAS number | % |
|------------------|------------|------------|
| Zinc oxide (ZnO) | 1314-13-2 | >= 50- <65 |

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**Description of necessary first aid measures**

Eye contact : Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Avoid inhalation of vapor, spray or mist. If inhaled, remove to fresh air. Get medical attention if you feel unwell.

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- Skin contact** : Wash with soap and water. Get medical attention if irritation develops.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Get medical attention if adverse health effects persist or are severe.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None identified.

Specific hazards arising from the chemical

- : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

- : Decomposition products may include the following materials: metal oxide/oxides, Avoid breathing dusts, vapors or fumes from burning materials., In case of inhalation of decomposition products in a fire, symptoms may be delayed.

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

- Special protective equipment for fire-fighters** : involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Remark** : Non-flammable.
- Remark** : Non-explosive.

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. Avoid breathing 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 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. Collect spillage.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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 non-combustible, 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

Not for human or animal consumption.

- | | | |
|---|---|--|
| Protective measures | : | Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| 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 in accordance with local regulations. 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. 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. Bund storage facilities to prevent soil and water pollution in the event of spillage. |


Section 8. Exposure controls/personal protection

Control parameters

- | | | |
|--|---|--|
| <u>Occupational exposure limits</u> | : | None. |
| Appropriate engineering controls | : | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |
| 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

- Hygiene measures** : A washing facility or water for eye and skin cleaning purposes should be present.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
- 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** : In case of inadequate ventilation wear respiratory protection.
- Personal protective equipment (Pictograms)** : 

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid [Suspension]
- Color** : Blue.,
- Odor** : Slight
- Odor threshold** : Not determined.
- pH** : 8.7

- Melting/freezing point** : Not determined.
- Boiling/condensation point** : Not determined.
- Sublimation temperature** : Not determined.
- Flash point** : Not determined.
- Evaporation rate** : Not determined.
- Flammability (solid, gas)** : Non-flammable.

- Lower and upper explosive (flammable) limits** : **Lower:** Not determined.
Upper: Not determined.
- Vapor pressure** : Not determined.
- Density** : 1.643 g/cm³

| | | |
|---|---|--|
| Relative density | : | Not determined. |
| Solubility | : | insoluble in water. |
| Partition coefficient: n-octanol/water | : | Not determined. |
| Auto-ignition temperature | : | Not determined. |
| Decomposition temperature | : | Not determined. |
| Viscosity | : | Dynamic: Not determined. Kinematic: Not determined. |
| Explosive properties | : | Non-explosive. |
| Oxidizing properties | : | None |

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 | : | Avoid contamination by any source including metals, dust and organic materials. |
| Incompatible materials | : | No specific data. |
| Hazardous decomposition products | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Method | Species | Result | Exposure | References |
|-------------------------|------------------------------------|---------|---------------|-----------------|------------|
| Zinc oxide (ZnO) | | | | | |
| | LD50 Oral | Rat | > 5,000 mg/kg | Not applicable. | IUCLID 5 |
| | LC50 Inhalation Dusts and mists | Rat | > 5.7 mg/l | 4 h | IUCLID 5 |

Conclusion/Summary : No known significant effects or critical hazards.

Irritation/Corrosion**Conclusion/Summary**

- Skin** : No known significant effects or critical hazards.
- Eyes** : No known significant effects or critical hazards.
- Respiratory** : No known significant effects or critical hazards.

Sensitization**Conclusion/Summary**

- Skin** : No known significant effects or critical hazards.
- Respiratory** : No known significant effects or critical hazards.

Mutagenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Carcinogenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Reproductive toxicity

- Conclusion/Summary** : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

No known significant effects or critical hazards.

Specific target organ toxicity (repeated exposure)

No known significant effects or critical hazards.

Aspiration hazard

No known significant effects or critical hazards.

- Information on the likely routes of exposure:** : Not available.

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

| | | |
|---------------------|---|-------------------|
| Eye contact | : | No specific data. |
| Inhalation | : | No specific data. |
| Skin contact | : | No specific data. |
| Ingestion | : | No specific data. |

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

| | | |
|------------------------------------|---|----------------|
| Potential immediate effects | : | Not available. |
| Potential delayed effects | : | Not available. |

Long term exposure

| | | |
|------------------------------------|---|----------------|
| Potential immediate effects | : | Not available. |
| Potential delayed effects | : | Not available. |

Potential chronic health effects

| | | |
|------------------------------------|---|---|
| Carcinogenicity | : | No known significant effects or critical hazards. |
| Mutagenicity | : | No known significant effects or critical hazards. |
| Fertility effects | : | No known significant effects or critical hazards. |
| Developmental effects | : | No known significant effects or critical hazards. |
| Effects on or via lactation | : | No known significant effects or critical hazards. |
| Other effects | : | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| | | |
|---------------------|---|-------------------|
| Eye contact | : | No specific data. |
| Inhalation | : | No specific data. |
| Skin contact | : | No specific data. |
| Ingestion | : | No specific data. |

Numerical measures of toxicity

Acute toxicity estimates
Not available.

Section 12. Ecological information**Toxicity**

| Product/ingredient name | Method | Species | Result | Exposure | References |
|-------------------------|--------|---------|--------|----------|------------|
| Zinc oxide (ZnO) | | | | | |

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| | | | | | |
|--|---------------------------------------|-------------|-----------------------|-------|----------|
| | Acute NOEC Fresh water | Fish. | 0.026 - 0.075 mg/l | 720 h | IUCLID 5 |
| | Acute LC50 Fresh water | Crustaceans | 0.14 mg/l | 24 h | IUCLID 5 |
| | Acute EC50 Fresh water | Water flea | 1 - 10 mg/l | 48 h | IUCLID 5 |
| | OECD 201 Acute IC50 Fresh water | Algae | 0.136 mg/l | 72 h | IUCLID |
| PROCOTE ZN | | | | | |
| Remarks - Acute - Fish: | No applicable toxicity data | | | | |
| Remarks - Acute - Aquatic invertebrates.: | No applicable toxicity data | | | | |
| Remarks - Acute - Aquatic plants: | No applicable toxicity data | | | | |
| Remarks - Chronic - Fish: | No applicable toxicity data | | | | |
| Remarks - Chronic - Aquatic invertebrates.: | No applicable toxicity data | | | | |

Conclusion/Summary : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Conclusion/Summary : No known significant effects or critical hazards.

Bioaccumulative potential

Conclusion/Summary : No known significant effects or critical hazards.

Mobility in soil

**Soil/water partition
coefficient (KOC)** : Not available.

Mobility : Not available.


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

Section 13. Disposal considerations

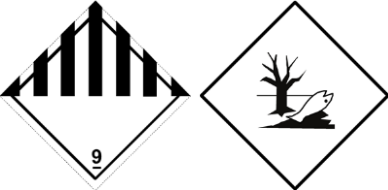
Product**Methods of disposal**

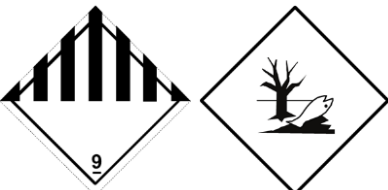
- : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus 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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| Regulation: UN Class | |
|---|---|
| 14.1 UN number | 3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 14.3 Transport hazard class(es) | 9  |
| 14.4 Packing group | III |
| 14.5 Environmental hazards | Yes. |
| Additional information <u>Environmental hazards</u> | : Yes. |

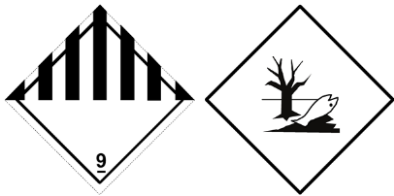
| Regulation: IMDG | |
|---------------------------------|---|
| 14.1 UN number | 3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 14.3 Transport hazard class(es) | 9 |

| | |
|-----------------------------------|--|
| |  |
| 14.4 Packing group | III |
| 14.5 Environmental hazards | Yes. |
| Additional information | |
| Marine pollutant | : No. |
| Emergency schedules (EmS) | : F-A, S-F |

| | |
|--|--|
| Regulation: IATA | |
| 14.1 UN number | 3082 |
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 14.3 Transport hazard class(es) | 9  |
| 14.4 Packing group | III |
| 14.5 Environmental hazards | Yes. |
| Additional information | |
| Marine pollutant | : Yes. |

| | |
|---|-----------------|
| Regulation: DOT Classification | |
| 14.1 UN number | Not Applicable. |
| 14.2 UN proper shipping name | |
| 14.3 Transport hazard class(es) | |
| 14.4 Packing group | |
| 14.5 Environmental hazards | |
| Additional information | |
| Not a DOT controlled material (United States)., This product is not regulated by HMR. | |

| | |
|------------------------------|------|
| Regulation: TDG Class | |
| 14.1 UN number | 3082 |

| | |
|--|---|
| 14.2 UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. |
| 14.3 Transport hazard class(es) | 9  |
| 14.4 Packing group | III |
| 14.5 Environmental hazards | Yes. |
| Additional information Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark) | |
| Environmental hazards : Yes. | |

14.6 Special precautions for user : Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Remark : Not a DOT controlled material (United States).

IMSBC : Not applicable.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

United States

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Zinc oxide (ZnO); Copper, [29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-, (SP-4-1)-;

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 : Not listed

Class I Substances
Clean Air Act Section 602 : Not listed
Class II Substances
DEA List I Chemicals : Not listed
(Precursor Chemicals)
DEA List II Chemicals : Not listed
(Essential Chemicals)

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.
Not applicable.

Composition/information on ingredients

No products were found.
No products were found.

SARA 313

Form R - Reporting requirements

| Product name | CAS number | % |
|------------------|------------|--------------|
| Zinc oxide (ZnO) | 1314-13-2 | >= 50 - < 65 |

Supplier notification

| Product name | CAS number | % |
|------------------|------------|--------------|
| Zinc oxide (ZnO) | 1314-13-2 | >= 50 - < 65 |

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.

State regulations

Massachusetts : The following components are listed:
 Zinc oxide (ZnO)
New York : None of the components are listed.
New Jersey : The following components are listed:

Pennsylvania : Zinc oxide (ZnO)
 : The following components are listed:
 Zinc oxide (ZnO)

California Prop. 65

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

Inventory list

Australia inventory (AICS): All components are listed or exempted.

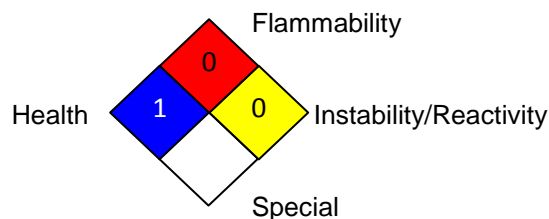
Taiwan Chemical Substances Inventory (TCSI): All components are listed or exempted.

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

EC INVENTORY (EINECS/ELINCS): All components are listed or exempted.

Section 16. Other information

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

| Classification | Justification |
|---|--------------------|
| AQUATIC HAZARD (ACUTE) - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - Category 1 | Calculation method |
| AQUATIC HAZARD (LONG-TERM) - | Calculation method |

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Category 1

History

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Revision comments : **Section 14. Transport information**

Version : 2.0
Prepared by : Yara Chemical Compliance (YCC).
Key to abbreviations : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 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)
 SGG = Segregation Group
 UN = United Nations
Key data sources : EU REACH ECHA/IUCLID5 CSR.
 National Institute for Occupational Safety and Health, U.S. Dept. of Health, Education, and Welfare, Reports and Memoranda Registry of Toxic Effects of Chemical Substances.
 Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

|| Indicates information that has changed from previously issued version.

Notice to reader

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