

Conforms: GHS (rev 3)(2009)

(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** : 04/08/2015  
**Date of previous issue** : 09/11/2014  
**Version** : 5.0



# SAFETY DATA SHEET

**YaraVita Zintrac**

## Section 1. Identification

**Product name** : YaraVita Zintrac  
**Product type** : Liquid  
**Product code** : PYP48M

### 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 considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification and labelling have been performed following the guidelines and recommendation of GHS and the intended use.**

**Classification of the substance or mixture** : AQUATIC TOXICITY (ACUTE) - Category 1  
AQUATIC TOXICITY (CHRONIC) - Category 1

### GHS label elements

Hazard pictograms

:



Signal word

:

No signal word.

Hazard statements

:

Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

Prevention

:

Avoid release to the environment.

Response

:

Not applicable.

Disposal

:

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

Product / ingredient name	CAS number	%
Zinc oxide (ZnO)	CAS: 1314-13-2	>=50 - <65
1,2-Ethanediol	CAS: 107-21-1	>=5 - <7

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.

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.

**Most important symptoms/effects, acute and delayed****Potential acute health effects**

Eye contact

:

Moderately irritating to eyes.

Inhalation

:

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact

:

Slightly irritating to the skin.

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : 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:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
metal oxide/oxides  
ammonia  
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 involving any personal risk or without suitable training.
- 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.
- Remark** : Non-flammable.
- Remark** : None.

## 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. 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".
- Personal precautions, protective equipment and emergency procedures** : 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. Put on appropriate personal protective equipment (see Section 8).
- 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 material 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. 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. Note: see section 1 for emergency contact information and section 13 for waste disposal.

## **Section 7. Handling and storage**

#### **Precautions for safe handling**

- Precautions for safe handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- 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

#### Occupational exposure limits

Ingredient name	Exposure limits
Zinc oxide (ZnO)	<p><b>OSHA PEL 1989 (1989-03-01)</b> PEL: Permissible Exposure Level 5 mg/m3 Form: Fume</p> <p><b>OSHA PEL 1989 (1989-03-01)</b> Short Term Exposure Limit (STEL) 10 mg/m3 Form: Fume</p> <p><b>OSHA PEL 1989 (1989-03-01)</b> PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust</p> <p><b>OSHA PEL 1989 (1989-03-01)</b> PEL: Permissible Exposure Level 5 mg/m3 Form: Respirable fraction</p> <p><b>OSHA PEL (1993-06-30)</b> PEL: Permissible Exposure Level 5 mg/m3 Form: Fume</p> <p><b>OSHA PEL (1993-06-30)</b> PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust</p> <p><b>OSHA PEL (1993-06-30)</b> PEL: Permissible Exposure Level 5 mg/m3 Form: Respirable fraction</p> <p><b>NIOSH REL (1994-06-01)</b> Time Weighted Average (TWA) 5 mg/m3 Form: Dust and fumes</p> <p><b>NIOSH REL (1994-06-01)</b> Short Term Exposure Limit (STEL) 10 mg/m3 Form: Fume</p> <p><b>NIOSH REL (1994-06-01)</b> Ceiling 15 mg/m3 Form: Dust</p> <p><b>ACGIH TLV (2003-01-01)</b> TLV-TWA: Threshold Limit Value - Time weighted average PEL: Permissible Exposure Level 2 mg/m3 Form: Respirable fraction</p> <p><b>ACGIH TLV (2003-01-01)</b> TLV-STEL: Threshold Limit Value - Short Time Exposure Level 10 mg/m3 Form: Respirable fraction</p>
1,2-Ethanediol	<p><b>OSHA PEL 1989 (1989-03-01)</b> Ceiling 125 mg/m3, 50 ppm</p> <p><b>NIOSH REL (1994-06-01)</b></p> <p><b>ACGIH TLV (1995-05-23)</b> Ceiling 100 mg/m3 Form: Aerosol</p>
Urea	<p><b>AIHA WEEL (1999-01-01)</b> Time Weighted Average (TWA) 10 mg/m3</p> <p><b>NIOSH REL (2005-09-30)</b></p>

- 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** :
- Wash hands, forearms and face thoroughly after handling

	chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing. A washing facility or water for eye and skin cleaning purposes should be present.
<b>Eye/face protection</b>	: 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.
<b><u>Skin protection</u></b>	
<b>Hand protection</b>	: 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.
<b>Body protection</b>	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved.
<b>Other skin protection</b>	: 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.
<b>Respiratory protection</b>	: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

## Section 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	: Liquid
<b>Color</b>	: White.
<b>Odor</b>	: Not determined.
<b>Odor threshold</b>	: Not determined.
<b>pH</b>	: 9
<b>Melting/freezing point</b>	: -7 °C (19.40 °F)
<b>Boiling/condensation point</b>	: Not determined.
<b>Sublimation temperature</b>	: Not determined.
<b>Flash point</b>	: Not determined.
<b>Evaporation rate</b>	: Not determined.
<b>Flammability</b>	: Non-flammable.
<b>Lower and upper explosive (flammable) limits</b>	: <b>Lower:</b> Not determined. <b>Upper:</b> Not determined.
<b>Vapor pressure</b>	: Not determined.
<b>Relative density</b>	: 1.734
<b>Solubility</b>	: Not determined.
<b>Partition coefficient: n-octanol/water</b>	: Not determined.
<b>Auto-ignition temperature</b>	: Not determined.
<b>Decomposition temperature</b>	: Not determined.
<b>Viscosity</b>	: <b>Dynamic:</b> 1,500 - 2,500 mPa.s
<b>Explosive properties</b>	: <b>Kinematic:</b> Not determined. : None.

**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** : Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.

**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	Result	Species	Dose	Exposure	References
Zinc oxide (ZnO)					
	LD50 Oral	Rat	> 5,000 mg/kg	-	IUCLID 5
	LC50 Inhalation	Rat	> 5.7 mg/l	4 h	IUCLID 5
1,2-Ethanediol					
	LD50 Oral	Rat	4,700 mg/kg	-	VCVGK* - ,139,1984

**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.

**Teratogenicity**

**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** : Moderately irritating to eyes.  
**Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
**Skin contact** : Slightly irritating to the skin.  
**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**

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



<b>General</b>	:	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	:	No known significant effects or critical hazards.
<b>Mutagenicity</b>	:	No known significant effects or critical hazards.
<b>Teratogenicity</b>	:	No known significant effects or critical hazards.
<b>Developmental effects</b>	:	No known significant effects or critical hazards.
<b>Fertility effects</b>	:	No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

<b>Eye contact</b>	:	No specific data.
<b>Inhalation</b>	:	No specific data.
<b>Skin contact</b>	:	No specific data.
<b>Ingestion</b>	:	No specific data.

**Numerical measures of toxicity****Acute toxicity estimates**

Not available.

**Section 12. Ecological information****Toxicity**

<b>Product / ingredient name</b>	<b>Result</b>	<b>Species</b>	<b>Exposure</b>	<b>References</b>
<b>Zinc oxide (ZnO)</b>				
	Acute LC50 1.1 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 h	Environmental Fate and Effects Division, U.S.EPA, Washington, D.C.
	Acute LC50 > 320 mg/l Fresh water	Fish - Lepomis macrochirus	96 h	Environmental Fate and Effects Division, U.S.EPA, Washington, D.C.
	Acute NOEC 0.026 - 0.075 mg/l Fresh water	Fish - Jordanella floridae	720 h	IUCLID 5
	Acute EC50 > 1,000 mg/l Fresh water	Aquatic invertebrates. - Daphnia magna	48 h	Environmental Fate and Effects Division, U.S.EPA, Washington, D.C.
	Acute IC50 0.136 mg/l Fresh water OECD 201	Aquatic plants	72 h	
<b>1,2-Ethanediol</b>				
	Acute LC50 16,000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 h	Resour.Publ.No.160, U.S.Dep.Interior, Fish Wildl.Serv., Washington, DC :505 p. (USGS Data File)
	Acute LC50 27,540 mg/l Fresh water	Fish - Lepomis macrochirus	96 h	In: D.H.Hemphill and C.R.Cothern (Eds.), Trace Substances in Environmental

Health,  
Suppl. Volume 12,  
Proc. Conf. Held  
in the Hotel Wastin,  
May 29-June 1,  
1989, Cincinnati,  
OH :371-378

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

**Persistence/degradability**

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

**Bioaccumulative potential**

Product / ingredient name	LogPow	BCF	Potential
1,2-Ethanediol	-1.36-1.36	-	low

**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.

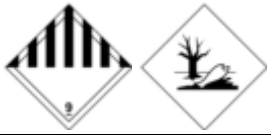
**United States - RCRA Acute hazardous waste "P" List:**


Not listed


**United States - RCRA Toxic hazardous waste "U" List:**

Not listed



## 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. (zinc oxide, )
14.3 Transport hazard class(es)	9 
14.4 Packing group	III
14.5 Environmental hazards	Yes.
14.6 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. (zinc oxide, )
14.3 Transport hazard class(es)	9 
14.4 Packing group	III
14.5 Environmental hazards	Yes.
14.6 Additional information <u>Marine pollutant</u>	: Yes.
<u>Emergency schedules (EmS)</u>	: F-A, S-F

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

Regulation: DOT Classification	
14.1 UN number	3082
14.2 UN proper shipping name	( )
14.3 Transport hazard class(es)	9

	 
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazards</b>	Yes.
<b>14.6 Additional information</b>	
<u>Environmental hazards</u>	: Yes.
<u>Limited quantity</u>	: 0.00

<b>Regulation: TDG Class</b>	
<b>14.1 UN number</b>	3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ()
<b>14.3 Transport hazard class(es)</b>	9  
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazards</b>	Yes.
<b>14.6 Additional information</b>	
<u>Environmental hazards</u>	: Yes.

**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.

**Remark** : THIS PRODUCT IN NON-BULK PACKAGING IS A MARINE POLLUTANT WHEN TRANSPORTED BY VESSEL. HOWEVER, IT IS NOT DOT REGULATED WHEN TRANSPORTED BY HIGHWAY ONLY PER 49 CFR, 171.4(c)

**IMSB** : Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## Section 15. Regulatory information

### United States

**U.S. Federal regulations** : **United States - TSCA 12(b) - Chemical export notification:** None of the components are listed.  
**United States - TSCA 4(a) - Final Test Rules:** Not listed  
**United States - TSCA 4(e) - ITC Priority list:** Not listed  
**United States - TSCA 4(a) - Proposed test rules:** Not

listed

**United States - TSCA 4(f) - Priority risk review:** Not

listed

**United States - TSCA 5(a)2 - Final significant new use**

**rules:** Not listed

**United States - TSCA 5(a)2 - Proposed significant new**

**use rules:** Not listed

**United States - TSCA 5(e) - Substances consent order:**

Not listed

**United States - TSCA 6 - Final risk management:** Not

listed

**United States - TSCA 6 - Proposed risk management:**

Not listed

**United States - TSCA 8(a) - Comprehensive**

**assessment report (CAIR):** Not listed

**United States - TSCA 8(a) - Chemical risk rules:** Not

listed

**United States - TSCA 8(a) - Dioxin/Furane precursor:**

Not listed

**United States - TSCA 8(a) - Chemical Data Reporting**

**(CDR):** Not determined

**United States - TSCA 8(a) - Preliminary assessment**

**report (PAIR):** Not listed

**United States - TSCA 8(c) - Significant adverse**

**reaction (SAR):** Not listed

**United States - TSCA 8(d) - Health and safety studies:**

Not listed

**United States - EPA Clean water act (CWA) section**

**307 - Priority pollutants:** Listed Zinc oxide (ZnO)

**United States - EPA Clean water act (CWA) section**

**311 - Hazardous substances:** Listed Potassium

hydroxide (K(OH))

**United States - EPA Clean air act (CAA) section 112 -**

**Accidental release prevention - Flammable**

**substances:** Not listed

**United States - EPA Clean air act (CAA) section 112 -**

**Accidental release prevention - Toxic substances:**

Not listed

**United States - Department of commerce - Precursor**

**chemical:** Not listed

**Clean Air Act Section 112(b) :** Listed

**Hazardous Air Pollutants  
(HAPs)**

**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**

Not applicable.

**SARA 304 RQ :** Not applicable.

**SARA 311/312**

**Classification** : Not applicable.

**SARA 313**

		<b>Product name</b>	<b>CAS number</b>	<b>Concentration</b>
<b>Form R - Reporting requirements</b>	:	Zinc oxide (ZnO)	1314-13-2	50 - 65
		1,2-Ethanediol	107-21-1	5 - 7
<b>Supplier notification</b>	:	Zinc oxide (ZnO)	1314-13-2	50 - 65
		1,2-Ethanediol	107-21-1	5 - 7

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

**State regulations****Massachusetts**

: The following components are listed:  
Zinc oxide (ZnO)  
1,2-Ethanediol

**New York**

: The following components are listed:  
1,2-Ethanediol

**New Jersey**

: The following components are listed:  
Zinc oxide (ZnO)  
1,2-Ethanediol

**Pennsylvania**

: The following components are listed:  
Zinc oxide (ZnO)  
1,2-Ethanediol

**California Prop. 65**

This product contains a chemical (or chemicals) known to the State of California to cause cancer and birth defects or other reproductive harm.

**International lists**

**New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

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

**Canada inventory (DSL and NDSL):** 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****Hazardous Material Information System (U.S.A.)**

<b>Health</b>	-	1
<b>Flammability</b>		0
<b>Physical hazards</b>		0

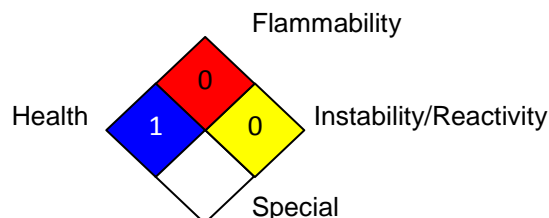
**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**Chronic toxicity:**

- : No data available.

\* : Carcinogen, Target organs, Reproductive effects, Sensitizer to lungs

**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.

**Key to abbreviations**

- : ADN/ADNR = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- : ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- : ATE = Acute Toxicity Estimate
- : BCF = Bioconcentration Factor
- : bw = Body weight
- : 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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- : NOHSC = National Occupational Health and Safety Commission
- : RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- : SUSDP = Standard for the Uniform Scheduling of Drugs and Poisons
- : UN = United Nations

**References**

- : EU REACH 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.
- : IHS, 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

**History**

- Date of printing** : 05/04/2015
- Date of issue/Date of revision** : 04/08/2015
- Date of previous issue** : 09/11/2014
- Version** : 5.0
- Prepared by** : Yara Product Classifications & Regulations.

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

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.