

Conforms: GHS (rev 4) (2011)

(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** : 08/22/2018  
**Date of previous issue** : 05/07/2015  
**Version** : 1.2



# SAFETY DATA SHEET

## NUTRA-PHOS ZN-K PLUS 3:20:10

### Section 1. Identification

**Product identifier** : NUTRA-PHOS ZN-K PLUS 3:20:10  
**Product type** : solid (Powder)  
**Product code** : PYP98W

#### 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 TOXICITY (ACUTE) - Category 1  
AQUATIC TOXICITY (CHRONIC) - 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

:

Product forms slippery surface when combined with water.

**Section 3. Composition/information on ingredients**

Substance/mixture

:

Mixture

Ingredient name	CAS number	%
Nitric acid potassium salt	7757-79-1	>= 20 - < 25

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

:

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. Do not induce vomiting unless directed to do so

by medical personnel. 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** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- 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. 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 flooding quantities of water for extinction.
- Unsuitable extinguishing media** : Do NOT use chemical extinguisher or foam or attempt to smother the fire with steam or sand.
- Specific hazards arising from the chemical** : 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 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".
- 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** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. 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

- 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. Keep away from: organic materials, oil and grease.

## Section 8. Exposure controls/personal protection

### Control parameters

- Occupational exposure limits** : 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** : 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.

- 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** : Use a properly fitted, particulate filter 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

- Physical state** : solid [Powder]  
**Color** : Off-white.  
**Odor** : Not determined.  
**Odor threshold** : Not determined.  
**pH** : 8.5 [Conc.: 50 g/l]

- Melting/freezing point** : Not determined.  
**Boiling/condensation point** : Not determined.  
**Sublimation temperature** : Not determined.  
**Flash point** : Not determined.  
**Fire 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.  
**Relative density** : Not determined.  
**Solubility** : Not determined.  
**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** : 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** : alkalis  
combustible materials  
reducing materials  
organic materials  
Acids

**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
Nitric acid potassium salt					
	LD50 Oral	Rat	2,000 - 5,000 mg/kg	Not applicable.	IUCLID
	LD50 Dermal	Rat	> 5,000 mg/kg	Not applicable.	

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

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	References
Nitric acid potassium salt	Skin - Non-irritating. OECD 404	Rabbit	0		72 h	IUCLID 5

#### **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****Classification**

Product/ingredient name	OSHA	IARC	NTP
Nitric acid potassium salt	Not applicable.	2A	Not applicable.

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

**Reproductive toxicity**

Product/ing redient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure	References
Nitric acid potassium salt	Negative	Negative	Negative	Rat	Oral: > 1500 mg/kg bw/day OECD 422	28 days	IUCLID 5

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

Product/ingredient name	Result	Species	Dose	Exposure	References
Nitric acid potassium salt	NOAEL Oral	Rat	> 1,500 mg/kg	28days	IUCLID 5

**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	Result	Species	Exposure	References
Nitric acid potassium salt	Acute LC50 1,378 mg/l Fresh water OECD 203	Fish	96 h	IUCLID 5

	Acute EC50 490 mg/l Fresh water	Daphnia	48 h	IUCLID 5
	Acute EC50 > 1,700 mg/l Fresh water	Algae	240 h	IUCLID 5

**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.

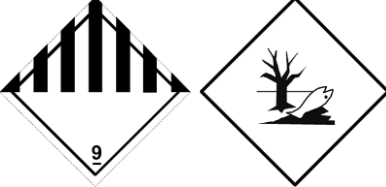
**Section 13. Disposal considerations**

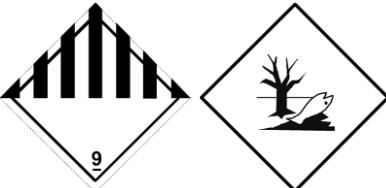
**Product**

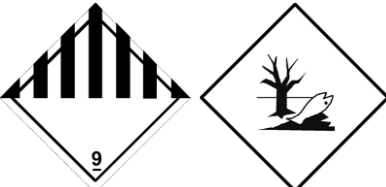
**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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**

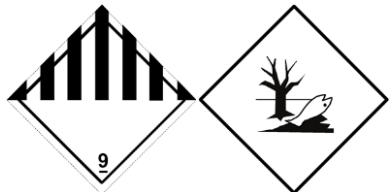
<b>Regulation: UN Class</b>	
<b>14.1 UN number</b>	3077
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide, )
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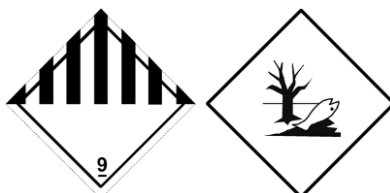
<b>14.3 Transport hazard class(es)</b>	9 
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazards</b>	Yes.
<b>Additional information</b> <u>Environmental hazards</u> : Yes.	

<b>Regulation: IMDG</b>	
<b>14.1 UN number</b>	3077
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide, )
<b>14.3 Transport hazard class(es)</b>	9 
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazards</b>	Yes.
<b>Additional information</b> <u>Marine pollutant</u> : Yes. <u>Emergency schedules (EmS)</u> : F-A, S-F	

<b>Regulation: IATA</b>	
<b>14.1 UN number</b>	3077
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc oxide, )
<b>14.3 Transport hazard class(es)</b>	9 
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazards</b>	Yes.
<b>Additional information</b> <u>Marine pollutant</u> : Yes.	

<b>Regulation: DOT Classification</b>
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<b>14.1 UN number</b>	3077
<b>14.2 UN proper shipping name</b>	Environmentally hazardous substance, solid, 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>Additional information</b> <u>Marine pollutant</u> : Not available.	

<b>Regulation: TDG Class</b>	
<b>14.1 UN number</b>	3077
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, 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>Additional information</b> 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) <u>Environmental hazards</u> : 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.

**IMSBC**

**Bulk cargo shipping name** : NUTRA-PHOS ZN-K PLUS 3:20:10  
**Class** : Not applicable.  
**Group** : C  
**Marpol V** : Non-HME

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not applicable.

## 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);
- Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed
- Clean Air Act Section 602 Class I Substances : Not listed
- Clean Air Act Section 602 Class II Substances : Not listed
- DEA List I Chemicals (Precursor Chemicals) : Not listed
- DEA List II Chemicals (Essential Chemicals) : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

- SARA 304 RQ : Not applicable.

### SARA 311/312

- Classification : Not applicable.

#### Composition/information on ingredients

Nitric acid potassium salt	>= 20 - < 25	F, CHF
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### SARA 313

#### Form R - Reporting requirements

Product name	CAS number	%
Zinc oxide (ZnO)	1314-13-2	0
Nitric acid potassium salt	7757-79-1	0

#### Supplier notification

Product name	CAS number	%
Zinc oxide (ZnO)	1314-13-2	0

Date of issue : 08/22/2018

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Nitric acid potassium salt

7757-79-1

0

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)  
Nitric acid potassium salt
- New York** : None of the components are listed.
- New Jersey** : The following components are listed:  
Zinc oxide (ZnO)  
Nitric acid potassium salt
- Pennsylvania** : The following components are listed:  
Zinc oxide (ZnO)  
Nitric acid potassium salt

**California Prop. 65**

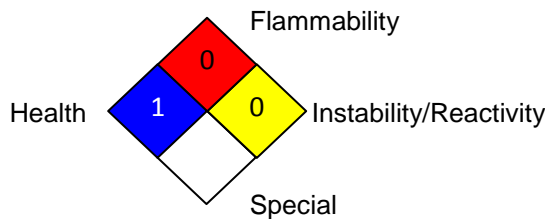
**⚠ WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Inventory list**

- Philippines inventory (PICCS):** All components are listed or exempted.
- New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
- Korea inventory:** 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:** 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.
- Canada:** 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 TOXICITY (ACUTE) - Category 1	Calculation method
AQUATIC TOXICITY (CHRONIC) - Category 1	Calculation method

#### History

<b>Date of printing</b>	: 08/27/2018
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<b>Version</b>	: 1.2
<b>Prepared by</b>	: Yara Chemical Compliance (YCC).
<b>Key to abbreviations</b>	: 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) UN = United Nations
<b>Key data sources</b>	: 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. Sphera Solutions Inc., 4777 Levy Street, St Laurent, Quebec HAR 2P9, Canada.

|| 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.

