Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017 Page 1 of 15 Print Date 04/11/2017

SAFETY DATA SHEET

Gravi-Tech GT3300-5005 HI White FD

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification	:	Gravi-Tech GT3300-5005 HI White FD Mixture Mixture EM10039801
Product type	:	solid
<u>Relevant identified uses of the subs</u> Product use	stance :	e or mixture and uses advised against Industrial applications. Plastics.
Supplier's details	:	POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012 1 (440) 930-1000 or 1 (866) POLYONE
Emergency telephone number (with hours of operation)	:	CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole. Information provided on the health effects of this product is based on individual components. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. After handling, always wash hands thoroughly with soap and water.

OSHA/HCS status	:	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
GHS label elements		
Signal word	:	No signal word.
		1/15

Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017 Page 2 of 15 Print Date 04/11/2017

Hazard statements

No known significant effects or critical hazards.

Precautionary statements

General	:	Not applicable.
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	None known.
Hazards not otherwise classified	:	None known.

Section 3. Composition/information on ingredients

:

Substance/mixture	:	Mixture
Chemical name	:	Mixture
Other means of identification	:	EM10039801

CAS number/other identifiers

Ingredient name	%	CAS number
Zinc oxide	60 - 100	1314-13-2

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	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

P<u>olyOne</u>

Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0	Page 3 of 15
Revision Date 04/10/2017	Print Date 04/11/2017

Skin contact	:	Flush contaminated skin with plenty of water. Remove contaminated
- /•		clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. Remove victim to fresh air and keep at
		rest in a position comfortable for breathing. 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 symptoms occur.

Most important symptoms/effects, acute and delayed

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	l attentio	on 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 withou suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or $\rm CO_2$. None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0	Page 4 of 15
Revision Date 04/10/2017	Print Date 04/11/2017

Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide metal oxide/oxides
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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel For emergency responders	:	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. 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 Methods and materials for containme	: nt a	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).
Methods and materials for containine	iii a	
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



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0	Page 5 of 15
Revision Date 04/10/2017	Print Date 04/11/2017

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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits			
Zinc oxide	OSHA PEL 1989 (1989-03-01)			
	PEL: Permissible Exposure Level 5 mg/m3 Form: Fume			
	Maximum permissible limit of exposure in the short term (short-			
	term exposure limit). 10 mg/m3 Form: Fume			
	PEL: Permissible Exposure Level 10 mg/m3 Form: Total dust			
	PEL: Permissible Exposure Level 5 mg/m3 Form: Respirable			
	fraction			
	OSHA PEL (1993-06-30)			
	PEL: Permissible Exposure Level 15 mg/m3 Form: Total dust			
	PEL: Permissible Exposure Level 5 mg/m3 Form: Respirable			
	fraction			
	NIOSH REL (1994-06-01) Time Weighted Average (TWA) 5 mg/m3 Form: Dust and fumes			
	Maximum permissible limit of exposure in the short term (short-			
	term exposure limit). 10 mg/m3 Form: Fume			
	Ceiling-A concentration that should not be exceeded at any time			
	during any part of the working day. 15 mg/m3 Form: Dust			
	ACGIH TLV (2003-01-01)			
	TLV-TWA: Threshold Limit Value - Time weighted average PEL:			
	Permissible Exposure Level 2 mg/m3 Form: Respirable fraction			
	TLV-STEL: Threshold Limit Value - Short Time Exposure Level			
	•			
	10 mg/m3 Form: Respirable fraction			



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017

Page 6 of 15 Print Date 04/11/2017

	OSHA PEL (1993-06-30)			
	PEL: Permissible Exposure Level 5 mg/m3 Form: Fume			
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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.			
Eye/face protection :	 showers are close to the workstation location. Safety eyewear complying with an approved standard should be us when a risk assessment indicates this is necessary to avoid exposur liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicate higher degree of protection: safety glasses with side-shields. 			
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 :				
Other skin protection :				
Respiratory protection :	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.			

Section 9. Physical and chemical properties

<u>PolyOne</u>

Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017

Page 7 of 15 Print Date 04/11/2017

Appearance

Physical state	:	solid [Pellets.]
Color	:	NO PIGMENT
Odor	:	Faint odor.
Odor threshold	:	Not available.
рН	:	Not available.
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not available.
Burning time	:	Not available.
Burning rate	:	Not available.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive	:	Lower: Not available.
(flammable) limits		Upper: Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	Not available.
Solubility	:	Not available.
Solubility in water	:	insoluble in water.
Partition coefficient: n- octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature		Not available.
SADT	:	Not available.
Viscosity		Dynamic: Not available.
. 10000103	•	Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Keep away from extreme heat and oxidizing agents.
Incompatible materials	:	Keep away from strong acids. Oxidizer.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017 Page 8 of 15 Print Date 04/11/2017

Section 11. Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Information on toxicological effects

Acute toxicity

Conclusion/Summary

: Mixture.Not fully tested.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Zinc oxide	Eyes - Mild irritant	Rabbit		24 hrs	-
	Skin - Mild irritant	Rabbit		24 hrs	-
Conclusion/Summary			•		
Skin		lixture.Not fi			
Eyes		lixture.Not fu			
Respiratory	: N	lixture.Not fu	illy tested.		
<u>Sensitization</u>					
Conclusion/Summary					
Skin		lixture.Not fu			
Respiratory	: N	lixture.Not fu	illy tested.		
Mutagenicity					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		
Carcinogenicity					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		
<u>Reproductive toxicity</u>					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		
Teratogenicity					
Conclusion/Summary	: N	lixture.Not fu	ally tested.		

Gravi-Tech GT3300-5005 HI White FD

Specific target organ toxicity (single exposure)

Version Number 1.0 Revision Date 04/10/2017 Page 9 of 15 Print Date 04/11/2017

Not available. Specific target organ toxicity (repeated exposure) Not available. **Aspiration hazard** Not available. Not available. Information on likely routes of exposure Potential acute health effects **Eve contact** No known significant effects or critical hazards. : Inhalation No known significant effects or critical hazards. : No known significant effects or critical hazards. Skin contact : No known significant effects or critical hazards. Ingestion : Symptoms related to the physical, chemical and toxicological characteristics Eye contact No specific data. : No specific data. Inhalation : Skin contact : No specific data. Ingestion No specific data. : Delayed and immediate effects as well as chronic effects from short and long-term exposure Short term exposure Not available. **Potential immediate effects** : Not available. **Potential delayed effects** : Long term exposure **Potential immediate effects** Not available. : **Potential delayed effects** Not available. • **Potential chronic health effects Conclusion/Summary** Mixture.Not fully tested. : No known significant effects or critical hazards. General : No known significant effects or critical hazards. Carcinogenicity : Mutagenicity : No known significant effects or critical hazards.



Gravi-Tech GT3300-5005 HI White FD

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Version Number 1.0 Revision Date 04/10/2017 Page 10 of 15 Print Date 04/11/2017

Teratogenicity Developmental effects Fertility effects No known significant effects or critical hazards.

: No known significant effects or critical hazards.

: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Zinc oxide			
	Acute LC50 2,246,000 µg/l Fresh	Fish - Fish	96 h
	water		
	Acute LC50 1.1 mg/l Fresh water	Fish - Fish	96 h
	Acute LC50 2.525 mg/l Fresh	Fish - Fish	96 h
	water		
	Acute LC50 3.969 mg/l Fresh	Fish - Fish	96 h
	water		
	Acute LC50 98 µg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 0.622 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute EC50 1 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute LC50 1.25 mg/l Fresh water	Aquatic invertebrates.	48 h
		Daphnia	
	Acute EC50 0.481 mg/l Fresh	Aquatic invertebrates.	48 h
	water	Daphnia	
	Acute IC50 46 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute IC50 63 µg/l Fresh water	Aquatic plants - Algae	72 h
	Acute IC50 1.85 mg/l Marine water	Aquatic plants - Algae	96 h
	Acute IC50 2.97 mg/l Marine water	Aquatic plants - Algae	96 h
	Acute IC50 2.36 mg/l Marine water	Aquatic plants - Algae	96 h
Gravi-Tech GT3300-5005 HI			·
Remarks - Acute - Aquatic	Chemicals are not readily available a	s they are bound within the	polymer matrix.
invertebrates.:	•	•	
Conclusion/Summary	: Chemicals are not readil	y available as they are bour	nd within the



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017 Page 11 of 15 Print Date 04/11/2017

polymer matrix.

Persistence and d	<u>legradability</u>

Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.
Conclusion/Summary	:	Chemicals are not readily available as they are bound within the polymer matrix.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Zinc oxide		60,960.00	high

Mobility in soil

Soil/water partition coefficient	:	Not available.
(KOC) Other adverse effects	:	No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods	:	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

U.S.DOT 49CFR

: Not regulated for transportation.



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0	Page 12 of 15
Revision Date 04/10/2017	Print Date 04/11/2017

 Ground/Air/Water

 International Air

 ICAO/IATA

 International Water

 IMO/IMDG

: Not classified as dangerous goods under transport regulations.

Section 15. Regulatory information

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(a) - 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 4(f) - Priority risk review: Not listed United States - TSCA 5(a) - Proposed significant new use rules: Not listed United States - TSCA 5(a) - Proposed significant new use rules: Not listed United States - TSCA 5(a) - Proposed significant new use rules: Not listed United States - TSCA 5(a) - Proposed risk management: Not listed United States - TSCA 6 - Final risk management: Not listed United States - TSCA 8(a) - Chemical risk rules: Not listed United States - TSCA 8(a) - Chemical risk rules: 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(d) - Health and safety studies: Not listed United States - TSCA 8(d) - Health and safety studies: Not listed United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Not listed 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 - Flammable substances: Not listed
		Not listed

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Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017 Page 13 of 15 Print Date 04/11/2017

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	:	Not listed
Clean Air Act Section 602 Class I	:	Not listed
Substances		NT . 11 . 1
Clean Air Act Section 602 Class II Substances	:	Not listed
DEA List I Chemicals (Precursor	•	Not listed
Chemicals)		1100 11000
DEA List II Chemicals (Essential	:	Not listed
Chemicals)		

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

Name	%	Classification
Zinc oxide	60 - 100	AH

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Zinc oxide	1314-13-2	60 - 100
Supplier notification	Zinc oxide	1314-13-2	60 - 100

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	: None of the components are listed.
New York	: None of the components are listed.
New Jersey	: The following components are listed: Zinc oxide
Pennsylvania	: The following components are listed: Zinc oxide

California Prop. 65



Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0	Page 14 of 15
Revision Date 04/10/2017	Print Date 04/11/2017

This PolyOne product does not contain any chemical known to the State of California to cause cancer, or birth defects or other reproductive harm, in concentrations that require a warning notice under California's Proposition 65. This statement relies in part on information provided by the buyer of this PolyOne product. PolyOne does not control or have complete knowledge of the end uses to which that buyer or any other entity in the chain of distribution and marketing may put this PolyOne product. Therefore, the buyer of this PolyOne product, each entity that uses this PolyOne product in formulating another product, and each entity in the chain of distribution and marketing of any product that includes the material in this PolyOne product must make its own decision as to giving a Proposition 65 warning.

United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	All components are listed or exempted.
International regulations		
<u>Inventory list</u>		
Australia	:	All components are listed or exempted.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Europe inventory	:	All components are listed or exempted.
Japan	:	All components are listed or exempted.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Turkey	:	Not determined.
United States	:	All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.) :

Health	*	1
Flammability		0
Physical hazards		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 SDSs 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.

History

Date of printing

04/11/2017

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Gravi-Tech GT3300-5005 HI White FD

Version Number 1.0 Revision Date 04/10/2017

Page 15 of 15 Print Date 04/11/2017

Date of issue/Date of revision Date of previous issue Version	:	04/10/2017 00/00/0000 1.0
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 = Internediate 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)
References	:	UN = United Nations Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed 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. Particularly this information may not be valid for such material used in conjunction with any other materials or in any process, unless specified in the text.