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Version Number 1.0 Revision Date 05/13/2014 Page 1 of 16 Print Date 05/14/2014

SAFETY DATA SHEET

ORANGE P021C GFNY HM

Section 1. Identification		
GHS product identifier Chemical name CAS number Other means of identification Product type	:	ORANGE P021C GFNY HM Mixture Mixture CC10198946 solid
Relevant identified uses of the subs	stance	or mixture and uses advised against
Product use Supplier's details	:	Industrial applications. Plastics. POLYONE CORPORATION 33587 Walker Road, Avon Lake, OH 44012
Emergency telephone number (with hours of operation)	:	1 (440) 930-1000 or 1 (866) POLYONE CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).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 MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	:	Not classified.
Hazard statements	:	No known significant effects or critical hazards.

Version Number 1.0 Revision Date 05/13/2014 Page 2 of 16 Print Date 05/14/2014

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	:	CC10198946

CAS number/other identifiers

%	CAS number
10 - 30	12656-57-4
5 - 10	1344-37-2
1 - 5	12656-85-8
	10 - 30 5 - 10

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



Version Number 1.0	Page 3 of 16
Revision Date 05/13/2014	Print Date 05/14/2014

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. 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.
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

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 a	tention and special treatment needed, if necessary
Notes to physician	: 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 (Sect	ion 11)

See toxicological information (Section 11)



Version Number 1.0 Revision Date 05/13/2014 Page 4 of 16 Print Date 05/14/2014

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO_2 . None known.
Specific hazards arising from the chemical	:	No specific fire or explosion hazard.
Hazardous thermal decomposition products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides 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 specialised 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).
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

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Version Number 1.0 Revision Date 05/13/2014 Page 5 of 16 Print Date 05/14/2014

Large spill

licensed waste disposal contractor.

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 Advice on general occupational hygiene	:	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.
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

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Control parameters

Occupational exposure limits

Ingredient name	Exposure limits	
Cadmium sulfoselenide orange (Orange	ACGIH TLV (1994-09-01) Calculated as Cd	
20)	TLV-TWA: Threshold Limit Value - Time weighted average PEL:	
	Permissible Exposure Level 0.01 mg/m3 Form: Inhalable fraction	
	TLV-TWA: Threshold Limit Value - Time weighted average PEL:	
	Permissible Exposure Level 0.002 mg/m3 Form: Respirable fraction	
Chrome yellow (Lead chromate pigment)	OSHA PEL (2006-11-27) Calculated as Cr	
	PEL: Permissible Exposure Level 0.005 mg/m3	
	NIOSH REL (2010-09-01) Calculated as Cr	
	Time Weighted Average (TWA) 0.0002 mg/m3	



Version Number 1.0 Revision Date 05/13/2014

eshold Limit Value - Time weighted average PEL: osure Level 0.05 mg/m3 2001-02-22) Calculated as Mo eshold Limit Value - Time weighted average PEL: osure Level 10 mg/m3 Form: Inhalable fraction reshold Limit Value - Time weighted average PEL: posure Level 3 mg/m3 Form: Respirable fraction
entilation should be sufficient to control worker orne contaminants. ventilation or work process equipment should be re they comply with the requirements of



Version Number 1.0	Page 7 of 16
Revision Date 05/13/2014	Print Date 05/14/2014

Hygiene measures Eye/face protection	:	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. 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. If contact is possible, the following protection should be worn, unless the assessment indicates a 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	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
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 [Pellets.]	
Color	: ORANGE	
Odor	: Faint odor.	
Odor threshold	: Not available.	
pH	: Not available.	
Melting point	: Not available.	
Boiling point	: Not available.	
Flash point	: Not available.	
Burning time	: Not available.	
Burning rate	: Not available.	

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Version Number 1.0 Revision Date 05/13/2014 Page 8 of 16 Print Date 05/14/2014

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-	:	Not available.
octanol/water		Not available.
Auto-ignition temperature	:	1.000 0.000000
Decomposition temperature	:	Not available.
SADT	:	Not available.
Viscosity	:	Dynamic: Not available.
•		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.Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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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.

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Version Number 1.0 Revision Date 05/13/2014 Page 9 of 16 Print Date 05/14/2014

Irritation/Corrosion			
Conclusion/Summary Skin Eyes Respiratory	:	Mixture.No	t fully tested. t fully tested. t fully tested.
<u>Sensitization</u>			
Conclusion/Summary Skin Respiratory	:		t fully tested. t fully tested.
<u>Mutagenicity</u>			
Conclusion/Summary	:	Mixture.No	t fully tested.
Carcinogenicity			
Conclusion/Summary	:	Mixture.No	t fully tested.
Classification	0.077.1		
Product/ingredient name	OSHA		IARC
Cadmium sulfoselenide			1
orange (Orange 20)			
Chrome yellow (Lead	+		1

Product/ingredient name	OSHA	IARC	NTP
Cadmium sulfoselenide		1	
orange (Orange 20)			
Chrome yellow (Lead	+	1	Proven.Reasonably
chromate pigment)			anticipated to be a human
			carcinogen.
Molybdate orange (Lead	+	1	Proven.Reasonably
chromate pigment)			anticipated to be a human
			carcinogen.

Reproductive toxicity

Conclusion/Summary : Mixture.Not fully tested.

Teratogenicity

Conclusion/Summary : Mixture.Not fully tested.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure) Not available.

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Version Number 1.0 Revision Date 05/13/2014

Page 10 of 16 Print Date 05/14/2014

<u>Aspiration hazard</u> Not available.		
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, ch	emi	cal 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 a	lso o	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	:	Mixture.Not fully tested.
General	:	No known significant effects or critical hazards.
Carcinogenicity	:	No known significant effects or critical hazards.
Mutagenicity	:	No known significant effects or critical hazards.
Teratogenicity	:	No known significant effects or critical hazards.
Developmental effects	:	No known significant effects or critical hazards.
Fertility effects	:	No known significant effects or critical hazards.

Numerical measures of toxicity

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Version Number 1.0 Revision Date 05/13/2014 Page 11 of 16 Print Date 05/14/2014

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result		Species	Exposure
ORANGE P021C GFNY HM				
Remarks - Acute - Aquatic	Chemicals	are not readily available	as they are bound wit	hin the polymer matrix.
invertebrates.:				
Conclusion/Summary	:	Chemicals are not reading polymer matrix.	ily available as they a	re bound within the
Persistence and degradability	<u>Y</u>			
Conclusion/Summary	:	Chemicals are not reading polymer matrix.	ily available as they a	re bound within the
Conclusion/Summary	:	Chemicals are not reading polymer matrix.	ily available as they a	re bound within the

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Chrome yellow (Lead		3,600.00	high
chromate pigment)			
Molybdate orange (Lead		3,600.00	high
chromate pigment)			

<u>Mobility in soil</u>

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

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Section 13. Disposal considerations

Disposal me	ethods
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The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products

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Version Number 1.0 Revision Date 05/13/2014 Page 12 of 16 Print Date 05/14/2014

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 Classification	:	Not regulated for transportation.
ICAO/IATA	:	Consult mode specific transport rules
IMO/IMDG (maritime)	:	Consult mode specific transport rules
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.'

Section 15. Regulatory information

U.S. Federal regulations	 United States - TSCA 12(b) - Chemical export notification: Not 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)2 - Final significant new use rules: Listed Cadmium sulfoselenide orange (Orange 20) Molybdate orange (Lead chromate pigment) United States - TSCA 5(a)2 - Proposed significant new use rule 	
	Listed Cadmium sulfoselenide orange (Orange 20) Molybdate orange (Lead chromate pigment)	

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Version Number 1.0 Revision Date 05/13/2014

Page 13 of 16 Print Date 05/14/2014

		United States - TSCA 5(e) - Substances consent order: Not listed United States - TSCA 6 - Final risk management: Listed Chrome yellow (Lead chromate pigment) Molybdate orange (Lead chromate pigment)
		United States - TSCA 6 - Proposed risk management: Not listed United States - TSCA 8(a) - Chemical risk rules: Not listed United States - TSCA 8(a) - Dioxin/Furane precusor: 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(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 Cadmium sulfoselenide orange (Orange 20) Chrome yellow (Lead chromate pigment) Zinc sulfide Molybdate orange (Lead chromate pigment)
		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 - Toxic substances: Not listed United States - Department of commerce - Precursor chemical: Not listed
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) Clean Air Act Section 602 Clean J	:	Listed
Clean Air Act Section 602 Class I Substances Clean Air Act Section 602 Class II Substances	:	Not listed

DEA List I Chemicals (Precursor Not listed : Chemicals) **DEA List II Chemicals (Essential** Not listed

Chemicals)

US. EPA CERCLA Hazardous Substances (40 CFR 302)

:

not applicable

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Version Number 1.0 Revision Date 05/13/2014 Page 14 of 16 Print Date 05/14/2014

SARA 311/312

Classification

Not applicable.

:

Composition/information on ingredients

Name	%	Classification
Cadmium sulfoselenide orange	10 - 30	СН
(Orange 20)		
Chrome yellow (Lead chromate	5 - 10	СН
pigment)		
Molybdate orange (Lead	1 - 5	СН
chromate pigment)		

SARA 313

	Product name	CAS number	%
Form R - Reporting	Cadmium sulfoselenide	12656-57-4	10 - 20
requirements	orange (Orange 20)		
	Chrome yellow (Lead	1344-37-2	5 - 7
	chromate pigment)		
	Zinc sulfide	1314-98-3	5 - 7
	Molybdate orange (Lead chromate pigment)	12656-85-8	1 - 3
Supplier notification	Cadmium sulfoselenide orange (Orange 20)	12656-57-4	10 - 20
	Chrome yellow (Lead chromate pigment)	1344-37-2	5 - 7
	Zinc sulfide	1314-98-3	5 - 7
	Molybdate orange (Lead chromate pigment)	12656-85-8	1 - 3

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:
	Barium sulfate
New York	: The following components are listed:
	Cadmium sulfoselenide orange (Orange 20)
New Jersey	: The following components are listed:
-	Barium sulfate
	Cadmium sulfoselenide orange (Orange 20)
	14/16

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Version Number 1.0 Revision Date 05/13/2014

Page 15 of 16 Print Date 05/14/2014

Pennsylvania	 Chrome yellow (Lead chromate pigment) Zinc sulfide Molybdate orange (Lead chromate pigment) The following components are listed: Barium sulfate
	Cadmium sulfoselenide orange (Orange 20)
	Chrome yellow (Lead chromate pigment)
	Zinc sulfide
	Molybdate orange (Lead chromate pigment)

<u>California Prop. 65</u> WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

United States inventory (TSCA 8b)	:	All components are listed or exempted.
Canada inventory	:	All components are listed or exempted.
International regulations		
International lists	:	 Australia inventory (AICS): All components are listed or exempted. Taiwan inventory (CSNN): Not determined. Malaysia Inventory (EHS Register): Not determined. EINECS: All components are listed or exempted. Japan inventory: Not determined. China inventory (IECSC): All components are listed or exempted. Korea inventory: Not determined. New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted. Philippines inventory (PICCS): Not determined.
Chemical Weapons Convention List Schedule I Chemicals	:	Not listed
Chemical Weapons Convention List Schedule II Chemicals	:	Not listed
Chemical Weapons Convention List Schedule III Chemicals	:	Not listed

Section 16. Other information

History



Version Number 1.0 Revision Date 05/13/2014 Page 16 of 16 Print Date 05/14/2014

Date of printing Date of issue/Date of revision Date of previous issue Version	:	05/14/2014 05/13/2014 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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	:	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.