

## SAFETY DATA SHEET

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# SAFETY DATA SHEET

**DB1631 YELLOW R#23****Section 1. Identification**

GHS product identifier : DB1631 YELLOW R#23  
Chemical name : Mixture  
CAS number : Mixture  
Other means of identification : FO20003360  
Product type : liquid

**Relevant identified uses of the substance or mixture and uses advised against**

Product use : 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 for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants 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. See sections 8 and 11 for special precautions. 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.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : EYE IRRITATION - Category 2B  
SKIN SENSITIZATION - Category 1

**GHS label elements**

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**Hazard pictograms**

:

**Signal word**

:

Warning

**Hazard statements**

:

Causes eye irritation.

May cause an allergic skin reaction.

**Precautionary statements****General**

:

Not applicable.

**Prevention**

:

Wear protective gloves. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

**Response**

:

IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage**

:

Not applicable.

**Disposal**

:

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

**Supplemental label elements**

:

None known.

**Hazards not otherwise classified**

:

None known.

<b>Section 3. Composition/information on ingredients</b>
----------------------------------------------------------

**Substance/mixture**

:

Mixture

**Chemical name**

:

Mixture

**Other means of identification**

:

FO20003360

**CAS number/other identifiers**

Ingredient name	%	CAS number
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	30 - 60	68515-48-0
Bisphenol A - Epichlorohydrin polymer	1 - 5	25068-38-6
Proprietary Hazardous Compounds	0.1 - 1	Not available.

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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

- |                     |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye contact</b>  | : | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Inhalation</b>   | : | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.                                                                                                                                                                                                                        |
| <b>Skin contact</b> | : | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Ingestion</b>    | : | Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

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

- Eye contact** : Causes eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

**Section 5. Firefighting measures**
**Extinguishing media**

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal** : May emit Hydrogen Chloride (HCl).



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disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** :
- Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** :
- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** :
- Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Proprietary Hazardous Compounds	

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Bisphenol A - Epichlorohydrin polymer	
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	

- 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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- 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.

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- 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** : 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

### Appearance

- Physical state** : liquid [liquid]
- Color** : YELLOW
- Odor** : Not available.
- 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.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : **Lower:** Not available.  
**Upper:** Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- 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.



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<b>Chemical stability</b>	:	Stable under recommended storage and handling conditions (see Section 7).
<b>Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	:	Keep away from extreme heat and oxidizing agents.
<b>Incompatible materials</b>	:	Avoid contact with acetal homopolymers and acetyl homopolymers during processing.
<b>Hazardous decomposition products</b>	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**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**

Product/ingredient name	Result	Species	Dose	Exposure
Bisphenol A - Epichlorohydrin polymer				
	LD50 Oral	Rat	13,600 mg/kg	-
	LD50 Oral	Rat	11,400 mg/kg	-
	LD50 Oral	Rat	11,400 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	30,000 mg/kg	-
	LD50 Oral	Rat	13,600 mg/kg	-
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich				
	LD50 Oral	Rat	10,000 mg/kg	-

**Conclusion/Summary** : Mixture. Not fully tested.

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Bisphenol A - Epichlorohydrin polymer	Eyes - Mild irritant	Rabbit			-
	Eyes - Mild irritant	Rabbit			-
	Skin - Moderate irritant	Rabbit		24 hrs	-
	Skin - Severe	Rabbit		24 hrs	-

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	irritant				
	Eyes - Mild irritant	Rabbit			-
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	Eyes - Mild irritant	Rabbit			-

**Conclusion/Summary**

**Skin** : Mixture.Not fully tested.  
**Eyes** : Mixture.Not fully tested.  
**Respiratory** : Mixture.Not fully tested.

**Sensitization****Conclusion/Summary**

**Skin** : Mixture.Not fully tested.  
**Respiratory** : Mixture.Not fully tested.

**Mutagenicity**

**Conclusion/Summary** : Mixture.Not fully tested.

**Carcinogenicity**

**Conclusion/Summary** : Mixture.Not fully tested.

**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)**

Product/ingredient name	Category	Route of exposure	Target organs
Proprietary Hazardous Compounds	Category 1		

**Aspiration hazard**

Not available.

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

**Potential acute health effects**

**Eye contact** : Causes eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
irritation  
watering  
redness  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
**Ingestion** : No specific data.

**Delayed and immediate effects as well as 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** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  
**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.

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

Not available.

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

**Conclusion/Summary** : Not available.

**Persistence and degradability**

**Conclusion/Summary** : Not available.

**Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
Bisphenol A - Epichlorohydrin polymer	2.64 - 3.78	31.00	low
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich	8.8	3.00	low

**Mobility in soil**

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

**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

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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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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

## 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:** Listed **1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich**
- 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 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) - 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):** Listed **4-Nonylphenol, branched**

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**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 **Miscellaneous Zinc Compounds**  
**Phenol**  
**2-Ethylhexanoic acid zinc salt**  
**Vinyl chloride monomer**

**United States - EPA Clean water act (CWA) section 311 - Hazardous substances:** 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)** : Listed  
**Hazardous Air Pollutants (HAPs)**  
**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

**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

not applicable

**SARA 311/312**

**Classification** : Immediate (acute) health hazard

**Composition/information on ingredients**

Name	%	Classification
Proprietary Hazardous Compounds	0.1 - 1	F, AH, CH
Bisphenol A - Epichlorohydrin polymer	1 - 5	AH
1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-	30 - 60	AH

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rich		
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**SARA 313**

Not applicable.

**State regulations**

- Massachusetts** : None of the components are listed.  
**New York** : None of the components are listed.  
**New Jersey** : The following components are listed:  
 Ethene, chloro-, homopolymer  
**Pennsylvania** : None of the components are listed.

**California Prop. 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

**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):** Not determined.
  - Taiwan Chemical Substances Inventory (TCSI):** Not determined.
  - Malaysia Inventory (EHS Register):** Not determined.
  - EINECS:** Not determined.
  - Japan inventory:** Not determined.
  - China inventory (IECSC):** Not determined.
  - Korea inventory:** Not determined.
  - New Zealand Inventory of Chemicals (NZIoC):** Not determined.
  - Philippines inventory (PICCS):** Not determined.
  - Taiwan Chemical Substances Inventory (TCSI):** Not determined.

**Chemical Weapons Convention** : Not listed

**List Schedule I Chemicals**

**Chemical Weapons Convention** : Not listed

**List Schedule II Chemicals**

**Chemical Weapons Convention** : Not listed

**List Schedule III Chemicals**

**Section 16. Other information**

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

<b>Health</b>	*	2
<b>Flammability</b>		0
<b>Physical hazards</b>		0

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**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** : 01/24/2017  
**Date of issue/Date of revision** : 01/23/2017  
**Date of previous issue** : 10/27/2015  
**Version** : 1.9

**Key to abbreviations**

: ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

**References** : Not available.

**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. 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.**