# **SAFETY DATA SHEET**

INEOS Olefins & Polymers USA

Black Polyethylene Copolymer

Section 1. Identification		
GHS product identifier	: Black Polyethylene Copolymer	
Product code	: SDS# 2032	
Other means of identification	: Black pipe resin	
Product type	: Pellets.	
Recommended use of the c	hemical and restrictions to use	
Product use	: Industrial applications.	
Area of application	: Industrial applications.	
Supplier's details	: INEOS Olefins & Polymers USA 2600 South Shore Blvd. #500 League City, Texas 77573	
e-mail address of person responsible for this SDS	: rcspolymers@ineos.com	
Emergency telephone number (with hours of operation)	: USA:1 (800) 424-9300 Outside USA:+1 703-527-3887 (CHEMTREC)	

### Section 2. Hazards identification

Classification of the substance or mixture	: COMBUSTIBLE DUSTS	
GHS label elements		
Signal word	: Warning	
Hazard statements	: No Code(s) - May form combustible dust concentrations in air.	
Precautionary statements		
Prevention	: Not applicable.	
Response	: Not applicable.	
Storage	: Not applicable.	
Disposal	: Not applicable.	
Supplemental label elements	: Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.	
Hazards not otherwise classified	: COMBUSTIBLE DUSTS. If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. In the event that combustible dust is generated, the hazard is posed only by the size of the particle not its chemical content because all monomers, additives and pigment are totally encapsulated within the resin and cannot be released in pure form.	

No ingredient(s) of unknown acute toxicity is intentionally used in this product.

Date of issue/Date of revision	Date	of	issue/	Date	of	revision
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# Section 3. Composition/information on ingredients

Substance/mixture	
Common name and	ł

: Polymer

: Black pipe resin

#### synonyms **CAS number/other identifiers**

### **CAS** number

: 25213-02-9 or 25087-34-7/1333-86-4 <4%

Ingredient name	Other names	%	CAS number
1-Hexene, polymer with ethene	Not available.	>96	25213-02-9
carbon black non-respirable	Carbon black	<4	1333-86-4

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 and hence require reporting in this section.

### Section 4. First aid measures

#### **Description of necessary first aid measures**

Eye contact	eyelids. C	ely flush eyes with plenty of water, occasionally lifting the upper and lower check for and remove any contact lenses. Continue to rinse for at least 10 Get medical attention if irritation occurs.
Inhalation	the affecte	by fumes from heated material, remove from source of exposure and move ed person into fresh air. If not breathing, give artificial respiration. If breathing give oxygen. Get medical attention.
Skin contact	water. If p polymer a	by contact with hot material, flush skin immediately with large amounts of cold ossible, submerge area in cold water. No attempt should be made to detach dhering to the skin or to remove clothing attached with molten material. urns require immediate medical attention. Cold material: Wash with soap and
Ingestion	keep at re the exposed exposed p unless dir kept low s effects pe If unconso	mouth with water. Remove dentures if any. Remove victim to fresh air and st in a position comfortable for breathing. If material has been swallowed and ed person is conscious, give small quantities of water to drink. Stop if the person feels sick as vomiting may be dangerous. Do not induce vomiting ected to do so by medical personnel. If vomiting occurs, the head should be o that vomit does not enter the lungs. Get medical attention if adverse health rsist or are severe. Never give anything by mouth to an unconscious person. ious, place in recovery position and get medical attention immediately. In open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### Most important symptoms/effects, acute and delayed

Potential acute health eff	<u>cts</u>
Eye contact	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation	<ul> <li>Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.</li> </ul>
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/syr	<u>otoms</u>
Eye contact	: Adverse symptoms may include the following: irritation redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Date of issue/Date of revision	: 09/10/2018 <b>SDS #</b> : SDS# 2032 <b>Version</b> : 1.01 2/12

### Section 4. First aid measures

Skin contact	: No specific data.
Ingestion	: No specific data.

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

Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>
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.

#### See toxicological information (Section 11)

### Section 5. Fire-fighting measures

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Suitable extinguishing media	: Use dry chemical powder.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: May be combustible at high temperature.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The major decomposition products are low molecular weight oligmers (C6-18) of polypropylene. Degradation products may include trace amounts of acrolein, formaldehyde, aldehydes, and other organic vapors.
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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
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, protec	tiv	e 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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).

### Section 6. Accidental release measures

Methods and materia	Is for containment and cleaning up
Small spill	: Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	: Granules spilled on the floor can cause slipping.Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. 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

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Protective measures	when handling and accumulation. Use ventilation is inaded made from a comp equipment and ligh coming into contact precautionary meas dissipate static elect	kin and clothing. A avoid all possible s only with adequate quate. Keep in the atible material, kep ting should be prote with hot surfaces, sures against elect tricity during transf ransferring materia	Avoid breathing dust sources of ignition (se ventilation. Wear original container or t tightly closed wher ected to appropriate sparks or other igni rostatic discharges. er by grounding and l. Empty containers	. Avoid the cr spark or flame appropriate re an approved not in use. E standards to tion sources. To avoid fire bonding cont	reation of dua ). Prevent d spirator whe alternative Electrical prevent dust Take or explosion tainers and	st lust en t
Advice on general occupational hygiene	drinking and smoking entering eating area measures. Light hydrocarbon w flammability/explos flash point must not vapour in tank head flammable and care sources during fillin There is a risk of be thermal burns. Do r heat resistant prote temperature of the generate large stati cause an explosion Electrical equipme prevent dust comin Fine dust clouds ma	d processed. Work ng. Remove conta as. See also Section vapours can build u ion hazards even a t be regarded as a dspaces). Tank heat e should be taken t g, and sampling fro eing splashed with not breathe gas, fun ctive gloves, clothin heated product. Pric c electrical charges . Earth all equipment and lighting shou g into contact with ay form explosive r stricity during transf	ters should wash ha minated clothing an on 8 for additional in p in the headspace t temperatures belo reliable indicator of adspaces should alw o avoid static electri om storage tanks. molten materials. He mes or vapor. When ng and face shield the umatic conveying s. Electrical dischar ent. Id be protected to a hot surfaces, sparks nixtures with air. To er by grounding and	nds and face d protective ed formation on l of tanks. The w the normal the potential fl vays be regard cal discharge eated materia handling hot hat are able to of powder and ge in presence appropriate sta s or other ignit avoid fire or e	before eating quipment be hygiene se can cause flash point (r lammability of ded as poten and all ignition l can cause material, we o withstand the pellets can e of air can andards to ion sources. explosion,	e note: of ntially ion ear he
<u>Conditions for safe storage, including any incompatibilities</u>	area, away from inc all ignition sources. and sealed until rea resealed and kept u	ntainer protected from compatible materia Separate from ox idy for use. Contai upright to prevent le intainment to avoid	om direct sunlight in s (see Section 10) a idizing materials. K ners that have been eakage. Do not stor environmental conta	a dry, cool ar and food and c eep container opened must e in unlabeled	d well-ventil drink. Elimin tightly close be carefully l containers.	lated nate d
Date of issue/Date of revision	: 09/10/2018	SDS #	: SDS# 2032	Version	: 1.01	4/12

### Section 7. Handling and storage

The main hazards are related to pallet stock slippage and forklift truck maneuvers, which can cause injury to personnel. It is highly recommended that adequate procedures covering storage handling of pallets are established and maintained. These procedures must be kept up to date and regularly audited. In most cases, best practice is to stack pallets no more than 2 high. However, facilities responsible for storing the material should perform a site specific risk assessment to determine whether pallets can be stacked safely.

### Section 8. Exposure controls/personal protection

#### Control parameters

Ingredient name	Exposure limits
Black Polyethylene Copolymer	ACGIH TLV (United States). Particulates Not Otherwise Specified TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Inhalable Particulates Not Otherwise Specified TWA: 3 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction OSHA PEL (United States). Particulates Not Otherwise Specified TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Respirable fraction Particulates Not Otherwise Specified TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total
1-Hexene, polymer with ethene carbon black, non respirable	None. <b>NIOSH REL (United States, 10/2016).</b> TWA: 3.5 mg/m <sup>3</sup> 10 hours. TWA: 0.1 mg of PAHs/cm <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 3.5 mg/m <sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 3 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction

Appropriate engineering controls	:	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
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 measur	<u>es</u>	
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	:	Safety glasses with side shields. If operating conditions cause high dust concentrations to be produced, use dust goggles.
Skin protection		

5/12

## Section 8. Exposure controls/personal 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. When handling hot material, wear heat-resistant protective gloves that are able to withstand the temperature of molten product. Cold material: None required. However, use of adequate ventilation is good industrial practice.
Body protection	<ul> <li>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.</li> <li>When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product.</li> <li>Cold material: None required. However, use of adequate ventilation is good industrial practice.</li> </ul>
Other skin protection	<ul> <li>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.</li> <li>When handling hot material, wear heat-resistant protective gloves, clothing and face shield that are able to withstand the temperature of the molten product.</li> <li>Cold material: None required. However, use of adequate ventilation is good industrial practice.</li> </ul>
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	: Solid. [Pellets.]
Color	: Black.
Odor	: Odorless.
Odor threshold	: Not available.
рН	: Not available.
Melting point	: 110 to 135°C (230 to 275°F)
Boiling point	: Not available.
Flash point	: Not available.
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 0.956 to 0.962
Solubility	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n- octanol/water	: The product is insoluble in water and octanol.
Auto-ignition temperature	: >340°C (>644°F)
Decomposition temperature	: >300°C (>572°F)

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Date of issue/Date of revision
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### Section 9. Physical and chemical properties

Viscosity

: Not available.

### 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. Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	: If heated to more than 300°C, the product may form vapors or fumes which could cause irritation of the respiratory tract, coughing, and shortness of breath. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.
Incompatible materials	Reactive or incompatible with the following materials:     oxidizing materials
Hazardous decomposition products	: Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The major decomposition products are low molecular weight oligmers (C6-18) of polypropylene. Degradation products may include trace amounts of acrolein, formaldehyde, aldehydes, and other organic vapors.

### Section 11. Toxicological information

: Routes of entry anticipated: Oral, Dermal, Inhalation. Information on the likely

routes of exposure

### Information on toxicological effects (Listed for the components where information is available.)

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
arbon black, non respirable	LD50 Dermal LD50 Oral	Rabbit Rat	3 g/kg >15400 mg/kg	-
- : Not available.				
Irritation/Corrosion	: Not available.			
Sensitization	: Not available.			
Specific target organ toxicity (single exposure)	: Not available.			
Specific target organ toxicity (repeated exposure)	: Not available.			
Aspiration hazard	: Not available.			
Potential acute health effects				
Eye contact	: Exposure to airborne co may cause irritation of th		atutory or recommen	ded exposure limits
Inhalation	: Exposure to airborne co may cause irritation of th			ded exposure limits
Skin contact	: No known significant eff	ects or critical hazards	i.	

Ingestion : No known significant effects or critical hazards.

Date of issue/Date of revision	
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### Section 11. Toxicological information

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

Eye contact	: Adverse symptoms may include the following: irritation redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Skin contact	: No specific data.
Ingestion	: No specific data.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

Route	ATE value
Acute toxicity estimates	
Numerical measures of toxic	<u>ity</u>
General	: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Potential chronic health eff	e <b>cts</b>
Potential delayed effects	: Not available.
Potential immediate effects	: Not available.
Long term exposure	
Potential delayed effects	: Not available.
Potential immediate effects	: Not available.
Short term exposure	

# Route ATE value Dermal 76454.5 mg/kg

#### **Mutagenicity**

Conclusion/Summary	: No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a mutagen.
Carcinogenicity	

#### Carcinogenicity

Conclusion/Summary	: None of the components in this product at concentrations greater than 0.1% are listed
	by IARC, NTP, OSHA or ACGIH as a carcinogen.

#### **Classification**

Product/ingredient name	OSHA	IARC	NTP
carbon black, non respirable	-	2B	-

+: Listed

- : Not applicable.

IARC 1 1, Carcinogenic to humans

IARC 2A 2A, Probably carcinogenic to humans

IARC 2B 2B, Possibly carcinogenic to humans

- IARC 3 3, Not classifiable as to its carcinogenicity to humans
- IARC 4 4, Probably not carcinogenic to humans

#### **Reproductive toxicity**

#### **Teratogenicity**

**Conclusion/Summary** 

: No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

Date of issue/Date of revision	
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8/12

# Section 12. Ecological information

: Wildlife may ingest plastic pellets or bags. Although not toxic, such materials may physically block the digestive system, causing starvation or death.
: Not available.
: Not available.
: Not available.
: This product is not likely to move rapidly with surface or groundwater flows because of its low water solubility.
: 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. 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.
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### Section 14. Transport information

	DOT Classification	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name		-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.

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.

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

Date of issue/Date of revision

### Section 15. Regulatory information

Additional regulatory information may be available through our website, at www.ineos.com.

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U.S. Federal regulations	: Uı	nited States invent	ory (TSCA 8b): All components are listed or exempted.	
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: No	Not listed		
Clean Air Act Section 602 Class I Substances	: No	Not listed		
Clean Air Act Section 602 Class II Substances	: No	Not listed		
DEA List I Chemicals (Precursor Chemicals)	: No	Not listed		
DEA List II Chemicals (Essential Chemicals)	: No	Not listed		
<u>SARA 302/304</u>				
Composition/information on ingredients	: No products were found.			
SARA 304 RQ	: No	: Not applicable.		
SARA 311/312				
Classification : COMBUSTIBLE DUSTS				
Composition/information on ingredients				
Name		%	Classification	

Name	%	Classification
Hexene, polymer with ethene	>96	COMBUSTIBLE DUSTS
carbon black non-respirable	<4	-

#### SARA 313

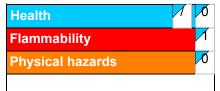
Not applicable.

### California Prop. 65

▲ None of the components are listed.

### Section 16. Other information

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



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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

### Section 16. Other information



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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.

#### Classification **Justification** Comb. Dusts On basis of test data **History** : 09/10/2018 Date of issue/Date of revision Date of previous issue : No previous version. Version : 1.01 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 HCS (U.S.A.)- Hazard Communication Standard References 20 International transport regulationsHazardous Substances Database (HSDB) : toxicology data file on the National Library of Medicine's (NLM) Toxicology Data Network (TOXNET). Registry of Toxic Effects of Chemical Substances (RTECS) Commission de la santé et de la sécurité du travail. Service du répertoire toxicologique (CSST) : information on chemical products used in the workplace including WHMIS classification. National Toxicology Program (NTP), Department of Health and Human Services: Report on Carcinogens International Agency for Research on Cancer (IARC), List of Carcinogens Occupational Safety and Health Administration (OSHA) (29 CFR 1910.1001-1052) -Carcinogens National Institute for Occupational Safety and Health; NIOSH Pocket Guide to Chemical Hazards. Aquatic Toxicity Information Retrieval (AQUIRE) Indicates information that has changed from previously issued version.

#### Procedure used to derive the classification

#### Notice to reader

### Section 16. Other information

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.