



# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 08/23/2013

Version: 1.1

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

#### Product Identifier

**Product form:** Mixture

**Product name:** Econo-CS35

**Synonyms:** High pH buffer

#### Intended Use Of The Product

**Use of the substance/mixture:** pH Buffering Agent. For professional and industrial use only.

#### Name, Address, And Telephone Of The Responsible Party

Economy® Polymers & Chemicals  
435 E. Anderson Road  
77047 Houston, TX  
T 713-723-8416; 1-800-231-2066  
[www.economypolymers.com](http://www.economypolymers.com)

#### Emergency Telephone Number

**Emergency number** : CHEMTREC 1-800-424-9300 (US); 703-527-3887 (International, collect calls are accepted)

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification Of The Substance Or Mixture

##### GHS-US classification

Skin Corr. 1A H314

Eye Dam. 1 H318

#### Label Elements

##### GHS-US labeling

##### Hazard pictograms (GHS-US)



##### Signal word (GHS-US)

: Danger

##### Hazard statements (GHS-US)

: H314 - Causes severe skin burns and eye damage  
H318 - Causes serious eye damage

##### Precautionary statements (GHS-US)

: P260 - Do not breathe vapors, mist, spray.  
P264 - Wash hands, forearms and other exposed areas thoroughly after handling.  
P280 - Wear protective gloves, protective clothing, eye protection, and face protection.  
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or doctor.  
P321 - Specific treatment (see section 4).  
P363 - Wash contaminated clothing before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Other Hazards

**Other hazards not contributing to the classification:** People with pre-existing eye problems, skin disorders, or respiratory issues may be more susceptible to the effects of this product.

**Unknown acute toxicity (GHS US)** Not available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### Mixture

Name	Product Identifier	% (w/w)	GHS-US classification
Water	(CAS No.) 7732-18-5	70-80	Not classified
Sodium hydroxide	(CAS No.) 1310-73-2	20-30	Met. Corr. 1, H290 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### Description Of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### Most Important Symptoms And Effects Both Acute and Delayed

**General:** Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

**Inhalation:** Inhalation of vapor and/or mist may cause respiratory irritation and sensitization.

**Skin Contact:** Corrosive. Causes burns.

**Eye Contact:** Causes serious eye damage. Causes severe irritation which will progress to chemical burns.

**Ingestion:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May cause nausea, vomiting, and diarrhea.

**Chronic symptoms:** Prolonged skin contact may result in severe irritation progressing to chemical burns.

### Indication Of Any Immediate Medical Attention And Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing Media

**Suitable extinguishing media:** Dry chemical, CO<sub>2</sub>, water spray, foam, or fog. Use extinguishing media appropriate for surrounding fire.

**Unsuitable extinguishing media:** Do not use a heavy water stream.

### Special Hazards Arising From The Substance Or Mixture

**Fire hazard:** Not considered flammable but may burn at high temperatures.

**Explosion hazard:** Product is not explosive, however in contact with incompatibilities may release explosive hydrogen gas.

**Reactivity:** Thermal decomposition generates: corrosive vapours. Adding water to solution may generate large amounts of heat.

# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### **Advice For Firefighters**

**Precautionary measures fire:** Not available

**Firefighting instructions:** Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.

**Protection during firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Sodium oxides

### **Reference To Other Sections**

Refer to section 9 for flammability properties.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment And Emergency Procedures**

Avoid contact with skin, clothing, and eyes.

#### **For Non-Emergency Personnel**

**Protective equipment:** Use appropriate personal protection equipment (PPE).

**Emergency procedures:** Evacuate unnecessary personnel.

#### **For Emergency Personnel**

**Protective equipment:** Equip cleanup crew with proper protection.

**Emergency procedures:** Ventilate area.

### **Environmental Precautions**

Prevent entry to sewers and public waters.

### **Methods And Material For Containment And Cleaning Up**

**For containment:** Neutralize with an acid. Pick up diluted material in inert material, and place in a suitable container. Do not flush remaining material or residues into sewers.

**Methods for cleaning up:** Clear up spills immediately and dispose of waste safely.

### **Reference To Other Sections**

See heading 8, Exposure Controls And Personal Protection.

## **SECTION 7: HANDLING AND STORAGE**

### **Precautions For Safe Handling**

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands, forearms and other exposed areas thoroughly after handling.

### **Conditions For Safe Storage, Including Any Incompatibilities**

**Technical measures:** Comply with applicable regulations. Container remains hazardous when empty. Continue to observe all precautions.

**Storage conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

**Storage temperature:** Store above 16°C(60°F) to prevent freezing.

**Specific End Use(s)** pH Buffering Agent

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **Control Parameters**

<b>Sodium hydroxide (1310-73-2)</b>		
Mexico	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Alberta	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

British Columbia	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Manitoba	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
New Brunswick	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
New Foundland & Labrador	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Nova Scotia	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Nunavut	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Northwest Territories	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Ontario	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Prince Edward Island	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Québec	PLAFOND (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Saskatchewan	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
Yukon	OEL Ceiling (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>

### Exposure Controls

**Appropriate engineering controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below. All electrical equipment should comply with the National Electric Code.

**Personal protective equipment:** Face shield. Protective clothing. Head/neck protection. Gloves. Protective goggles.



**Materials for protective clothing:** Chemically resistant materials and fabrics.

**Hand protection:** Wear chemically resistant protective gloves.

**Eye protection:** Chemical goggles or face shield.

**Skin and body protection:** Wear suitable protective clothing.

**Respiratory protection:** Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist are expected to exceed exposure limits.

**Other information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information On Basic Physical And Chemical Properties

Physical state	: Liquid
Appearance	: Transparent
Odour	: Not available
Odour threshold	: Not available
pH	: 13 - 14
Relative evaporation rate (butylacetate=1)	: Not available
Melting point	: -18°C (-0.4°F)
Freezing point	: Not available
Boiling point	: 110°C (230°F)
Flash point	: > 100°C (212°F)
Auto-ignition temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available

# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>Lower flammable limit</b>	: Not available
<b>Upper flammable limit</b>	: Not available
<b>Vapour pressure</b>	: Not available
<b>Relative vapour density at 20 °C</b>	: Not available
<b>Relative density</b>	: Not available
<b>Specific gravity density</b>	: 1.24-1.27
<b>Solubility</b>	: Soluble in water
<b>Log Pow</b>	: Not available
<b>Log Kow</b>	: Not available
<b>Viscosity, kinematic</b>	: Not available
<b>Viscosity, dynamic</b>	: Not available
<b>Explosion data - sensitivity to mechanical impact</b>	: Not available
<b>Explosion data - sensitivity to static discharge</b>	: Not available

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity** Thermal decomposition generates: corrosive vapours. Adding water to solution may generate large amounts of heat.

**Chemical Stability** Stable under normal conditions.

**Possibility Of Hazardous Reactions** Corrosive substances in contact with metals may produce flammable hydrogen gas.

**Conditions To Avoid** Direct sunlight. Extremely high or low temperatures.

**Incompatible Materials** Organic halogen compounds. Metals. Nitromethane, sugars. Strong acids. Strong oxidizers.

**Hazardous Decomposition Products** Carbon oxides (CO, CO<sub>2</sub>). Thermal decomposition generates: Corrosive vapours. Sodium oxides.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information On Toxicological Effects - Product

**Acute toxicity** : Not classified

**LD50 and LC50 Data** Not available

**Skin corrosion/irritation:** Causes severe skin burns and eye damage. **pH:** 13 - 14

**Serious eye damage/irritation:** Causes serious eye damage. **pH:** 13 - 14

**Respiratory or skin sensitisation:** Not classified

**Germ cell mutagenicity:** Not classified

**Teratogenicity:** Not available

**Carcinogenicity:** Not classified

**Specific target organ toxicity (repeated exposure):** Not classified

**Reproductive toxicity:** Not classified

**Specific target organ toxicity (single exposure):** Not classified

**Aspiration hazard:** Not classified

**Symptoms/injuries after inhalation:** Inhalation of vapor and/or mist may cause respiratory irritation and sensitization, which may develop to burns.

**Symptoms/injuries after skin contact:** Corrosive. Causes burns.

**Symptoms/injuries after eye contact:** Causes serious eye damage. Causes severe irritation which will progress to chemical burns.

**Symptoms/injuries after ingestion:** May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. May cause nausea, vomiting, and diarrhea.

**Chronic symptoms:** Prolonged skin contact may result in severe irritation progressing to chemical burns, which will severely corrode skin.

#### Information On Toxicological Effects - Ingredient(s)

##### **LD50 and LC50 Data**

##### **Sodium hydroxide (1310-73-2)**

LD50 dermal rabbit	1350 mg/kg
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# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 12: ECOLOGICAL INFORMATION

#### Toxicity

##### Sodium hydroxide (1310-73-2)

LC50 fishes 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
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#### Persistence And Degradability

##### Econo-CS35

Persistence and degradability	Not established.
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#### Bioaccumulative Potential

##### Econo-CS35

Bioaccumulative potential	Not established.
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**Mobility In Soil** Not available

#### Other Adverse Effects

**Other information:** Avoid release to the environment.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste disposal recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

### SECTION 14: TRANSPORT INFORMATION

In accordance with ICAO/IATA/DOT/TDG

UN Number

UN-No.(DOT): 1824

DOT NA no.: UN1824

#### UN Proper Shipping Name

DOT Proper Shipping Name : Sodium Hydroxide Solution (Sodium Hydroxide, 25%)

Department of Transportation (DOT) Hazard Classes : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive substances



Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102) : B2 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks are not authorized.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where:  $t_r$  is the maximum mean bulk temperature during transport,  $t_f$  is the temperature in degrees celsius of the liquid during filling, and  $\alpha$  is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling ( $t_f$ ) and the maximum mean bulk temperature during transportation ( $t_r$ ) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where:  $d_{15}$  and  $d_{50}$  are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**DOT Packaging Exceptions (49 CFR 173.xxx)** : 154  
**DOT Packaging Non Bulk (49 CFR 173.xxx)** : 202  
**DOT Packaging Bulk (49 CFR 173.xxx)** : 242  
**Emergency Response Guide (ERG) number** : 154

**Additional information** Not regulated for transport

**Overland transport** Not regulated for transport

### Transport by sea

**DOT Vessel Stowage Location** : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

**DOT Vessel Stowage Other** : 52 - Stow "separated from" acids

### Air transport

**DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)** : 1 L

**DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)** : 30 L

## SECTION 15: REGULATORY INFORMATION

### US Federal regulations

#### **Water (7732-18-5)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### **Sodium hydroxide (1310-73-2)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

### US State regulations

#### **Sodium hydroxide (1310-73-2)**

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute  
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)  
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)  
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)  
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities  
U.S. - Hawaii - Occupational Exposure Limits - Ceilings  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Emission Levels (ELs)  
U.S. - Idaho - Occupational Exposure Limits - TWAs  
U.S. - Louisiana - Reportable Quantity List for Pollutants  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 1  
U.S. - Massachusetts - Oil & Hazardous Material List - Groundwater Reportable Concentration - Reporting Category 2  
U.S. - Massachusetts - Oil & Hazardous Material List - Reportable Quantity  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 1  
U.S. - Massachusetts - Oil & Hazardous Material List - Soil Reportable Concentration - Reporting Category 2  
U.S. - Massachusetts - Right To Know List  
U.S. - Massachusetts - Toxics Use Reduction Act  
U.S. - Michigan - Occupational Exposure Limits - Ceilings  
U.S. - Michigan - Polluting Materials List  
U.S. - Minnesota - Chemicals of High Concern  
U.S. - Minnesota - Hazardous Substance List  
U.S. - Minnesota - Permissible Exposure Limits - Ceilings  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - 24-Hour  
U.S. - New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels (AALs) - Annual  
U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances  
U.S. - New Jersey - Right to Know Hazardous Substance List

# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

U.S. - New Jersey - Special Health Hazards Substances List  
U.S. - New York - Occupational Exposure Limits - TWAs  
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances  
U.S. - North Dakota - Air Pollutants - Guideline Concentrations - 1-Hour  
U.S. - Oregon - Permissible Exposure Limits - TWAs  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual  
U.S. - South Carolina - Toxic Air Pollutants - Maximum Allowable Concentrations  
U.S. - South Carolina - Toxic Air Pollutants - Pollutant Categories  
U.S. - Tennessee - Occupational Exposure Limits - Ceilings  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term  
U.S. - Vermont - Permissible Exposure Limits - Ceilings  
U.S. - Washington - Permissible Exposure Limits - Ceilings  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 25 Feet to Less Than 40 Feet  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 40 Feet to Less Than 75 Feet  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights 75 Feet or Greater  
U.S. - Wisconsin - Hazardous Air Contaminants - All Sources - Emissions From Stack Heights Less Than 25 Feet

### Canadian regulations

#### Econo-CS35

WHMIS Classification | Class E - Corrosive Material



#### Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification | Uncontrolled product according to WHMIS classification criteria

#### Sodium hydroxide (1310-73-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification | Class E - Corrosive Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

## SECTION 16: OTHER INFORMATION

**Indication of changes** : Revision date: 08/23/2013

**Other information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	skin corrosion/irritation Category 1A
H290	May be corrosive to metals
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage



# Econo-CS35

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

H318	Causes serious eye damage
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### Party Responsible For The Preparation Of This Document:

Economy Polymers & Chemicals

435 E. Anderson Road Houston, TX 77047

713-723-8416; 1-800-231-2066

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

North America GHS US 2012 & WHMIS