

MATERIAL SAFETY DATA SHEET

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: G&W #306 (Indopol H-15)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

	<u>CAS #</u>	<u>% by Weight</u>	<u>Exposure Limits</u>
1) Polybutene (Isobutylene/butene copolymer)	9003-29-6	>99	None Assigned.

SECTION 3. HAZARDS IDENTIFICATION

Physical state:	Liquid
Color:	Clear. Colorless.
Emergency Overview:	This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact with eyes.

POTENTIAL HEALTH EFFECTS

Eyes:	May cause slight transient irritation. Heated material can cause thermal burns.
Skin:	Repeated exposure may cause skin dryness or cracking. Heated material can cause thermal burns.
Inhalation:	Exposure to aerosols or particulates from heated material may cause adverse lung effects if high concentrations are inhaled.
Ingestion:	Ingestion may cause gastrointestinal irritation and diarrhea.

See Toxicological Information (section 11)

SECTION 4. FIRST AID MEASURES

Eye Contact:	Hot material: Flush eyes with plenty of water for at least 15 minutes. Seek medical assistance for mechanical removal of this material from the eye. The use of flush fluid, other than water, is not recommended. Cold material: Flush eyes with plenty of water.
Skin Contact:	Hot material: Immediately flush with cool water for at least 15 minutes. Get immediate medical attention. Cold material: Clean exposed skin with waterless hand cleaner.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
Note to Physician:	Medical personnel may leave the material in place to minimize physical damage to the skin. Medical personnel may cover the material with a burn gel to prevent the adhesive of the dressing to the material.
SECTION 5. FIRE FIGHTING MEASURES	
Flammability of the Product:	May be combustible at high temperature.
Autoignition Temperature:	Not available.
Flash Points:	OPEN CUP:>135°C(275°F) (Cleveland.).
Flammable Limits:	Not available.
Products of Combustion:	These products are carbon oxides (CO, CO2).
Unusual fire/explosion hazards:	Rapid depolymerization can occur in a fire to produce flammable vapors. Non-explosive in presence of open flames, sparks and static discharge, of shocks, of heat, of oxidizing materials.
Fire Fighting Media and Instructions:	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Protective Clothing (Fire):	Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
SECTION 6. ACCIDENTAL RELEASE MEASURES	
Large Spill and Leak:	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container. Transfer into suitable containers for recovery or disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. Keep out of waterways. Treat as an oil spill. Insoluble in water.
SECTION 7. HANDLING AND STORAGE	
Handling:	Avoid breathing vapors or spray mists. Adequate ventilation should be provided if there is risk of aerosol formation. Keep away from sources of ignition. Ground all equipment containing material. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat or sources of ignition. To avoid fire or explosion, dissipate static electricity during transfer

	<p>by grounding and bonding containers and equipment before transferring material. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin. Avoid contact with eyes.</p> <p>Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.</p>
Storage:	<p>Store in a segregated, approved and labeled area. A potentially flammable atmosphere may be generated if material is held hot for prolonged periods. For prolonged storage at temperatures of 60°C and above, keep in rust-free tanks and exclude oxygen by use of a nitrogen blanket. Heating systems which generate localized hot spots should never be used. Suitable storage materials are: mild steel / carbon steel. Store and use away from heat, sparks, open flame, or any other ignition source. Keep container tightly closed in a cool, well-ventilated place.</p>
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION	
Engineering Control:	<p>Use only with adequate ventilation. Avoid breathing vapor or mist. Wear appropriate respirator when ventilation is inadequate. Ensure that eyewash stations and safety showers are proximal to the work-station location.</p>
PERSONAL PROTECTION	
Eyes:	<p>Safety glasses with side shields. Goggles, face shield, or other full-face protection if potential exists for direct exposure to aerosols or splashes, or when material is handled hot.</p>
Skin and Body:	<p>Wear apron or coverall if potential for exposure to splashes. When handling hot material, wear heat resistance protective gloves, clothing and face shield that are able to withstand the temperature of the molten product.</p>
Respiratory:	<p>Respiratory protection is not normally required. If heated and ventilation is inadequate, use a NIOSH certified respirator with an organic vapor cartridge and P95 particulate filter.</p>
Hands:	<p>Gloves: Protective gloves should be worn under normal conditions of use. When handling hot material, wear heat-resistant protective gloves that are able to with stand the temperature of molten product.</p>
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES	
Physical State:	Liquid
pH:	Not applicable.
Odor:	Characteristic
Color:	Clear. Colorless.
Boiling/Condensation Point:	Not available.
Melting/Freezing Point:	Not available.
Specific Gravity:	0.85 (Water=1) (minimum)
Vapor Pressure:	Not available.
Vapor Density:	Not available.

Evaporation Rate:	Not available.
Viscosity:	>94 cSt at 40°C
LogK _{ow} :	Not available.
Solubility:	Insoluble in cold water, hot water.
SECTION 10. STABILITY AND REACTIVITY	
Stability and Reactivity:	Stable under recommended storage and handling conditions (see section 7). Depolymerizes at temperatures above 250°C
Conditions to avoid:	Keep away from sources of ignition. Keep away from heat, sparks and flame.
Incompatibility with Various Substances:	Strong oxidizing agents; acidic clays at > 100°C
Hazardous Decomposition Products:	Products of Combustion: carbon oxides (CO, CO ₂)
Hazardous Polymerization:	Will not occur.
SECTION 11. TOXICOLOGICAL INFORMATION	
Acute toxicity:	<p>Acute oral toxicity (LD50): >34600 mg/kg [Rat (similar material)]. Acute dermal toxicity (LD50): >10250 mg/kg [Rat (similar material)].</p> <p>Similar materials were practically non-toxic when tested in acute oral (rat LD50 > 34,600 mg/kg), dermal (rabbit LD50 > 10,250 mg/kg).</p> <p>A range of similar materials have been tested for eye and skin irritation. For eye irritation, none of these materials have produced scores exceeding 3.0 out of a possible total of 110 with complete disappearance of effects in 72 hours (rabbits). Consequently these materials are not expected to be irritating to the eyes. When applied to the skin of rabbits similar materials scored 1.5 out of a possible total of 8.0, indicating that this product may be a slight skin irritant.</p>
Chronic toxicity:	<p>CARCINOGENIC EFFECTS: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.</p> <p>MUTAGENIC EFFECTS: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.</p> <p>TERATOGENIC EFFECTS/DEVELOPMENT TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.</p> <p>REPRODUCTION TOXICITY: No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.</p>

Other Information:	In a two year rat and dog study and a three-generation reproduction study with rats, similar materials caused no adverse effects when fed at levels as high as 2% in the diet.
SECTION 12. ECOLOGICAL INFORMATION	
Ecotoxicity:	>10000 mg/l [LC50, BP Study Nominal similar material], 96 hours [Fish(Trout)]. >1000 mg/l [LC50, BP Study Nominal similar material], 96 hours [Minnows]. >1000 mg/l [EC50, BP Study Nominal similar material], 48 hours [Daphnia]. >10000 mg/l [EC50, BP Study Nominal similar material], 48 hours [Daphnia]. >1000 mg/l [EC50, (WSF) BP Study Nominal similar material], 48 hours [Daphnia].
Persistence Potential:	This product is unlikely to biodegrade at a significant rate.
Mobility:	This product is not likely to move rapidly with surface or groundwater flows because of its low water solubility of: <1000ppm
Other Ecological Information:	<p>Aquatic studies of materials with very low water solubility often refer to the amount of chemical added to the test system, not the amount dissolved in water. Most acute aquatic toxicity studies of these have used the water-accommodated fraction (WAF) obtained by mixing the test chemical in water for 20 to 24 hours, then siphoning the water for use in the test.</p> <p>These materials are not expected to adversely affect microbial activity. Following a modified OECD Method 209, bacterial inhibition using activated sludge microbes was tested with several grades of this material. The tests showed no bacterial inhibition at loadings of up to 25mg/L, measured through oxygen consumption (respiration). In separate tests, the biological demand (BOD) of the microorganisms was measured. In these tests, there was no evidence of bacterial toxicity, even at loadings of about 200,000 mg/L. In addition, an epoxidized form of this material was found to be non-mutagenic and non-toxic to the microorganism used in the Ames mutagenicity assay, Salmonella typhimurium.</p>
SECTION 13. DISPOSAL CONSIDERATIONS	
Waste Information:	<p>Waste must be disposed of in accordance with federal, state and local environmental control regulations.</p> <p>Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Labels should not be removed from containers until they have been cleaned.</p>
Consult your local or regional authorities.	
SECTION 14. TRANSPORT INFORMATION	
DOT Classification:	Not a DOT controlled material (United States).
Marine Pollutant:	Not pollutant.
Special Provisions for Transport:	None identified.
ADR/RID Classification	

UN number	Not applicable.
Proper shipping name:	Not regulated.
ADR/RID Class:	Not applicable.
Packing Group:	Not applicable.
IMO/IMDG Classification	
Proper shipping name:	Not regulated.
IMDG Class:	Not applicable.
UN number:	Not applicable.
Packing Group:	Not applicable.
Marine Pollutant:	Not pollutant.
ICAO/IATA Classification	
Proper shipping name:	Not regulated.
IATA Class:	Not applicable.
UN number:	Not applicable.
Packing Group:	Not applicable.
SECTION 15. REGULATORY INFORMATION	
U.S. Regulations:	<p>US INVENTORY (TSCA): In compliance.</p> <p>SARA Title III Section 302 Extremely Hazardous Substances (40 CFR Part 355):: This product is not regulated under Section 302 of SARA and 40 CFR Part 355.</p> <p>SARA Title III Sections 311/312 Hazardous Categorization (40 CFR Part 370):: Defined as non-hazardous by OSHA under 29 CFR 1910.1200(d).</p> <p>SARA 313 toxic chemical notification and release reporting: No products were found.</p> <p>CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: This material is not regulated under CERCLA Sections 103 and 107.</p>
State Regulations:	<p>No products were found.</p> <p>California prop. 65: No products were found.</p>
Other Regulations:	<p>AUSTRALIAN INVENTORY (AICS): In compliance.</p> <p>CANADA INVENTORY (DSL): In compliance.</p> <p>CHINA INVENTORY (IECS): In compliance.</p> <p>EC INVENTORY (EINECS/ELINCS): In compliance.</p> <p>JAPAN INVENTORY (ENCS): In compliance.</p> <p>KOREA INVENTORY (ECL): In compliance.</p>

PHILIPPINE INVENTORY (PICCS): In compliance.
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SECTION 16. OTHER INFORMATION

Label Requirements:	This product has been evaluated and does not require any hazard warning on the label under established regulatory criteria.
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National Fire Protection Association (U.S.A.):	Health: 0 Fire Hazard: 1 Reactivity: 0
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DATE: 07/01/09	SUPERSEDES: 01/02/08
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NOTICE: This Material Safety Data Sheet (MSDS) conforms to the requirements of OSHA 29 CFR Part 1910 and State of California CCR Title 8, and the recommendations in ANSI Z400.1. The information it contains is offered in good faith as accurate. We have reviewed the information contained in this MSDS, which we received from sources outside our company. We believe that information to be correct, but we make no representations as to the accuracy or completeness thereof. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. We disclaim any liability for damage or injury which results from the use of the above information and nothing contained therein shall constitute a guarantee, warranty (including warranty of merchantability) or representation (including freedom from any patent liability) by us with respect to the information, the product described, or their use for any specific purpose, even if that purpose is known to us. In no event will we be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information.