1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:	GATORHYDE CG (2015) PART A
Common Name:	MDI Prepolymer
SDS Number:	GATORHYDE CG (2015) PART A 30000
Product Code:	2015-A-30000
Revision Date:	5/27/2015
Version:	2
Chemical Family:	Diisocyanate
Internal ID:	2015-A-30000
Product Use:	2 part polymeric elastomers for industrial and commercial applications.
Supplier Details:	Chemline Incorporated 5151 Natural Bridge Road Saint Louis, MO 63115
Emergency:	CHEMTREC 800-262-8200 (24 HOUR SERVICE)
Phone:	314-664-2230
Fax:	314-254-1355
Web:	www.chemline.net

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Acute toxicity, 5 Oral
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Respiratory or skin sensitization, 1 Respiratory
Health, Respiratory or skin sensitization, 1 Skin
Health, Carcinogenicity, 2
Health, Specific target organ toxicity - Single exposure, 3

GHS Label elements, including precautionary statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

GHS Hazard Statements:

H303 - May be harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H334 - May cause allergy or asthma symptoms of breathing difficulties if inhaled
H317 - May cause an allergic skin reaction
H351 - Suspected of causing cancer
H336 - May cause drowsiness or dizziness

GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P284 - Wear respiratory protection.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.

Hazards not otherwise classified (HNOC) or not covered by GHS

Route of Entry: Skin; Inhalation; Ingestion; Eyes;

Target Organs: Respiratory system; Skin; Eyes;

Inhalation: At room temperature, MDI vapors are minimal due to low vapor pressure. Excessive exposure may cause irritation of the upper respiratory tract and lungs. Heating, spraying, foaming or otherwise mechanically dispersing operations may generate vapor or aerosol concentrations sufficient to cause irritation or other adverse effects. Impaired lung function has been associated with overesposure to isocyanates. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in indiviuals already sensitized. Severe overexposure may lead to bronchitis, brochial spasms and pulmonary edema. Symptoms may include coughing, dryness of throat, headache, nausea, difficulty breathing and a feeling of tightness in the chest.

Skin Contact: Prolonged or repeated exposure can cause skin irritation, reddening, swelling, blistering, scaling, rash, dermatitis and in some cases sensitization. Skin contact may result in allergic reactions or respiratory sensitization, but it is not expected to result in absorption of amounts sufficient to cause other adverse effects.

Eye Contact: May cause irritation, inflamation and/or damage to sensitive eye tissue. Symptoms can include tearing, swelling and reddening. If left untreated, corneal injury can occur.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
0	88%	MDI Prepolymer, trade secret
101-68-8	18%	4,4'-Methylenediphenyl diisocyanate

4 FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

Skin Contact: Remove contaminated clothing immediately. Wash with large quantities of soap and water. For sever exposure, get under safety shower after removing clothing, then get medical attention. Wash clothing before reuse. Seek medical attention if redness, burning or an itcing sensation develops or persisits after the area is washed.

Eye Contact: Flush with large amounts of water for 15 minutes, holding eyelids open. Get immediate medical attention.

Ingestion: Do not induce vomiting or give liquids unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention.

5 FIRE FIGHTING MEASURES

Flash Point: >230°F
Flash Point Method: Pensky-Martens Closed Cup (ASTM D-93)
Burning Rate: N/A
Autoignition Temp: N/A
LEL: N/A

Dry chemical, foam, carbon dioxide, water spray for large fires. The reaction between water and hot isocyanate can be vigorous. At temperatures greater than 400°F, polymeric MDI can polymerize and decompose which will cause pressure build up in closed containers. Fire fighters should wear positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6 ACCIDENTAL RELEASE MEASURES

Spill: Evacuate spill area. With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to metal waste containers. Move container to a well ventilated area (outside), but do not seal the container with the isocyanate mixture. Larger quantities of liquid may be transferred directly to drums for disposal. Decontaminate or discard all clean-up equipment.
NOTE: ISOCYANATES WILL REACT WITH WATER AND GENERATE CARBON DIOXIDE. THIS COULD RESULT IN THE RUPTURE OF ANY CLOSED CONTAINERS.
Clean up: The area should then be flushed with a decontamination solution. The decontamination solution is a 5-10% mixture of sodium carbonate and 0.5% liquid detergent in water solution or a 3-8% concentrated ammonium hydroxide and 0.5% liquid detergent in water. Use 10 parts decontamination solution to 1 part spilled material. If the ammonium hydroxide solution is used, ammonia will be evolved as a vapor. Use caution to avoid exposure to high concentrations of ammonia. Allow contained material to stand for 48 hours letting evolved carbon dioxide to escape.

7 HANDLING AND STORAGE

Handling Precautions:
Open containers must be handled properly to prevent moisture pickup. Avoid contact with skin and eyes.The reaction of polyols and isocyanates generates heat. Use PPE when transferring material from drums, totes or other containers.
Special Emphasis for spray applications of mixed products containing isocyanates: Inspect the application area for potential to expose other persons or for overspray to drift onto buildings, vehicles or other property. When spraying building exteriors, persons entering or exiting the building as well as those inside could be exposed to polyisocyanates due to wind conditions, open windows or air intakes. Do not begin application work until these potential problems have been corrected.

Storage Requirements:
Store in tightly closed containers in cool, dry area to prevent moisture contamination. Do not reseal if contamination is suspected. 60°F - 80°F (min/max). If container is exposed to high heat (>400°F), it can become pressurized and possibly rupture. MDI reacts slowly with water to form CO2 gas. This gas can cause sealed containers to expand and possibly rupture.
Shelf life: 6 months at 77 °F.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:
MDI has a low vapor pressure at room temperature. Uses requiring heating and/or spraying may require more agressive engineering controls or PPE. Monitoring is required to determine engineering controls. Eyewash station and safety shower should be easily accessible.

Personal Protective Equipment:
HMIS PP, K | Full Face Respirator, Gloves, Full Suit, Boots

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Components with workplace control parameters

4,4'-Methylenediphenyl diisocyanate (101-68-8)

TWA 0.0050 ppm USA. ACGIH Threshold Limit Values (TLV)
Respiratory sensitization

C 0.02 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -
0.2 mg/m3 1910.1000

C 0.02 ppm USA. Occupational Exposure Limits (OSHA) - Table Z- 1
0.2 mg/m3 Limits for Air Contaminants
The value in mg/m3 is approximate. Ceiling limit is to be determined from breathing-zone air samples.

TWA 0.0050 ppm USA. NIOSH Recommended Exposure Limits
0.05 mg/m3
10 minute ceiling value

C 0.2 ppm USA. NIOSH Recommended Exposure Limits
0.2 mg/m3
10 minute ceiling value

MDI contains reactive isocyanate groups.
PEL 0.02 ppm
NIOSH REL 0.05 mg/m^3; 0.2 mg/m^3 10 minute ceiling
ACGIH TLV 0.051 mg/m^3 (0.005 ppm) TWA

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Nonpigmented liquid		
Physical State:	Liquid	**Odor:**	Mild
Odor Threshold:	4 mg/m3 MDI	**Solubility:**	Not soluble in water. REACTS with water
Spec Grav./Density:	1.117 @ 25°C	**Freezing/Melting Pt.:**	N/A
Viscosity:	839 CPS @ 25°C	**Flash Point:**	>230°F (110°C)
Boiling Point:	N/A	**Vapor Density:**	8.5
Flammability:	None	**Auto-Ignition Temp:**	No data available
Partition Coefficient:	No data available	**UFL/LFL:**	No data available
Vapor Pressure:	4x10-6 (mg HG @25°C)		
pH:	N/A		
Evap. Rate:	N/A		
Decomp Temp:	No data available		

10 STABILITY AND REACTIVITY

Chemical Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Moisture and/or water. High temperatures, sparks, flame and extended exposure over 110°F (45°C).
Materials to Avoid:	Water, alcohols; strong bases; metal compounds;
Hazardous Decomposition:	With high heat or fire: carbon monoxide, oxides of nitrogen, traces of HCN, MDI vapors or aerosols Excess gas may rupture containers.

Hazardous Polymerization: May occur. Contact with other materials which react with isocyanates or temperature above 400°F.

11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:
Oral LD50 LD50 Oral - rat - 4,700 mg/kg
Inhalation LC50 Dermal LD50 no data available
Other information on acute toxicity

Skin corrosion/irritation: Serious eye damage/eye irritation:

Eyes - rabbit - Moderate eye irritation

Respiratory or skin sensitization: no data available

May cause allergic respiratory and skin reactions

Germ cell mutagenicity: Laboratory experiments have shown mutagenic effects.

Genotoxicity in vitro - Human - lymphocyte Sister chromatid exchange
Genotoxicity in vivo - rat - Inhalation DNA damage

Carcinogenicity:
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
Limited evidence of carcinogenicity in animal studies
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Diphenylmethane-4,4- diisocyanate)
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Reproductive toxicity - rat - Inhalation:

Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.

no data available

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System):
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System):
no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be fatal if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

Signs and Symptoms of Exposure: Cough, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed.

Synergistic effects: no data available

Additional Information:

RTECS: NQ9350000

12 ECOLOGICAL INFORMATION

4,4'-Methylenediphenyl diisocyanate (101-68-8)
Information on ecological effects

Toxicity:
Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 0.35 mg/l - 24 h.
and other aquatic invertebrates

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: Do not empty into drains.

no data available

13 DISPOSAL CONSIDERATIONS

Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.
Do not allow material to enter sewers, a body of water, or contact the ground. Refer to RCRA 40 CFR 261, and/or any other appropriate federal, state or local requirements for proper classification information.

14 TRANSPORT INFORMATION

Non DOT/RCRA regulated

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

RQ(5000LBS), 4,4'-Methylenediphenyl diisocyanate (101-68-8) [18%] CERCLA, HAP, MASS, NJHS, OSHAWAC, PA,

SARA313, TSCA, TXAIR

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Regulatory CODE Descriptions
-------------------------------------------------------------
RQ = Reportable Quantity
CERCLA = Superfund clean up substance
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJHS = NJ Right-to-Know Hazardous Substances
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level
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16 OTHER INFORMATION

NFPA: Health = 3, Fire = 1, Reactivity = 1, Specific Hazard = None
HMIS III: Health = 3, Fire = 1, Physical Hazard = 1
HMIS PPE: K - Full Face Respirator, Gloves, Full Suit, Boots

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