



MATERIAL SAFETY DATA SHEET

Form WI04-11A Rev. 1

Part Number(s):
59-200-01/ 59-300-01

Product Name: Clear chain long 15" spool from
Orthodontal

Release Date: July 24, 2007

1. Product and Company Identification

Trade Name & Synonyms Pellethane * 2355-80AE Polyurethane elastomer	MSDS Code Number Refer to part number
Chemical Name	Manufacture / Distributor GAC International Inc.
C.A.S. Number 110553-31-6	Address 355 Knickerbocker Ave. Bohemia, NY USA 11716
Grades or Minor Variant Identities NA	Information Telephone Number 1-631-419-1700
Product Use (for Canada) NA	Emergency Telephone Number 1-631-419-1700

2. Composition of Ingredients

Hazardous Components	C.A.S. Number	Exposure Limits	%
Polyurethane from methylenediphenyl diisocyanate, 1,4-butanediol, and polybutylene adipate:	110553-31-6	NA	> 98
Additives	NA	NA	< 2

3. Hazard Identification

Emergency Overview

Clear colorless to yellow pellets. Odorless. No significant immediate hazards for emergency response are known.

Routes of Exposure	Signs and Symptoms	Single, Repeated, or Lifetime Exposure	Severity (Mild, Moderate, Severe)	Acute and Chronic Health Effect(s)	Target Organ(s)
Eye	Solid or dust may cause irritation or corneal injury due to mechanical action. Elevated temperatures may generate vapor levels sufficient to cause eye irritation.	NA	NA	NA	NA
Skin	Essentially nonirritating to skin. Mechanical injury only. Skin absorption is unlikely due to physical properties. Molten material may burn skin.	NA	NA	NA	NA
Inhalation	Dust may cause irritation to upper respiratory tract. At room temperature, exposures to vapors are unlikely due to physical properties; normal processing temperatures may generate vapors which may cause irritation if irritation is inadequate.	NA	NA	NA	NA
Ingestion	Single dose or oral toxicity is considered to be extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.	NA	NA	NA	NA
Other	No specific data; however, repeated exposures to the unheated material are not anticipated to cause any significant adverse effects. Processing fumes may cause eye and respiratory irritation upon repeated exposure.	NA	NA	NA	NA

Medical Conditions Aggravated by Exposure

NA

Carcinogenicity (IARC, NTP)

Cancer information: No relevant information found.

Teratology (birth defects): No relevant information found. Reproductive effects: No relevant information found.

Potential Environmental Effects

NA



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4. First Aid Measures

Routes of Exposure	First Aid Instructions	Immediate Medical Attention	Delayed Effects
Eye	Flush eyes with plenty of water.	NA	NA
Skin	Wash off in flowing water or shower.	NA	NA
Inhalation	Remove to fresh air if effects occur. Consult a physician.	NA	NA
Ingestion	No adverse effects anticipated by this route of exposure incidental to proper industrial handling.	NA	NA
Other	NA	NA	NA

Note to Physicians (Treatment, Testing, and Monitoring)

If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the Physician in response to reaction of the patient.

5. Fire and Explosion Data

Flashpoint & Method: °C / °F N/A Method used: N/A	Flammable (Explosive) Limits in Air LEL: N/A UEL: N/A	Autoignition Temperature NA	Other NA
Flame Propagation or Burning Dense smoke is emitted when burned without sufficient oxygen. To reduce the potential for dust explosion, for not permit dust to accumulate.	Properties Contributing to Fire Intensity NA	Flammability Classification Health- , Flammability- , Reactivity- NA	
Extinguishing Media Water, carbon dioxide or dry chemical.	Extinguishing Media to Avoid NA		
Protection and Procedures for Firefighters Keep people away. Isolate fire area and deny unnecessary entry. Cool surroundings with water to localize fire zone. Hand held carbon dioxide or dry chemical extinguishers may be used for small fires. Soak thoroughly with water to cool and prevent re-ignition. Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.			
Unusual Fire and Explosion Hazards Hazardous combustion products: Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and / or irritating compounds. Hazardous combustion products may include and are not limited to carbon monoxide and carbon dioxide and trace amounts of aromatic hydrocarbons and hydrogen cyanide.			

6. Accidental Release Measures

Containment Techniques NA
Spill/Leak Clean-Up Procedures and Equipment Spills should be collected to prevent contamination of waterways. See section 12 for more specific information. Clean up: Sweep up.
Evacuation Procedures NA
Special Instructions Protect people: Pellets or beads may present a slipping hazard.
Reporting Requirements NA



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7. Handling and Storage

Handling Practices and Warnings

Good housekeeping and controlling of dusts are necessary for safe handling of product.

Storage Practices and Warnings

(°C / °F). Store in a dry place. Shelf life: 3 years

8. Exposure Control/Personal Protection

Ventilation

Local exhaust ventilation may be necessary for some operations.

Other Engineering Controls

Good general ventilation should be sufficient for most conditions.

Routes of Entry:

Personal Protective Equipment (PPE) for Normal Use:

PPE for Emergencies:

Eye/Face

Use safety glasses. If there is a potential for exposure to particles which could cause mechanical injury to the eye, wear chemical goggles. If vapor exposure causes eye discomfort, use a full-face respirator.

NA

Skin

No precautions other than clean body-covering clothing should be needed. Use gloves with insulation for thermal protection, when needed.

NA

Inhalation

In dusty atmospheres, use an approved dust respirator. For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator. Exposure guideline (s): None established.

NA

General Hygiene Considerations and Work Practices

NA

Protective Measures During Repair and Maintenance of Contaminated Equipment

NA

Other Protective Measures and Equipment

NA

9. Physical and Chemical Characteristics

Appearance

Clear colorless to yellow pellets.

Odor

Odorless.

Normal Physical State:

Liquid Gas

Solid NA(Other)

Boiling Point °C / °F N/A

Melting Point °C / °F NA

Freezing Point °C / °F NA

Specific Gravity or Density (H₂O=1)

1.15 – 1.25

Solubility in Water

Insoluble

pH

NA

Vapor Pressure (mm Hg @ 20°C)

N/A

Vapor Density (AIR= 1)

N/A

Evaporation Rate (Butyl Acetate = 1)

NA

Other

NA



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10. Stability and Reactivity Data

Incompatibility (Materials to Avoid)

None known.

Hazardous Products Produced During Decomposition

Depend on temperature, air supply and the presence of other materials.

Hazardous Polymerization?

May Occur May Not Occur

Conditions to Avoid

°C / °F NA

Stability?

Stable Unstable

Conditions to Avoid

Temperatures above 260 °C / 500°F

11. Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic or Reproductive Effects, or Structure Activity Data

Ingestion: Single dose oral LD50 has not been determined.

Mutagenicity: No relevant information found.

12. Ecological Information

Toxicity, Environmental Fate, Physical/Chemical Data, or Other Data Supporting Environmental Hazard Statements

Environmental fate: Movement & Partitioning: No bioconcentration is expected because of high molecular weight (MW > 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain the sediment.

Degradation & persistence: This water insoluble polymeric solid may be hydrolysable under some environmental conditions. Surface photodegradation is expected with exposure to sunlight. Biodegradation may occur slowly under aerobic conditions (in the presence of oxygen).

Ecotoxicity: Not expected to be acutely toxic, but pellets, if ingested by waterfowl or aquatic life, may mechanically cause adverse effects.

13. Disposal Considerations

Regulations

Disposal: Do not dump into any sewers, on the ground, or into anybody of water. All disposal methods must be in compliance with all federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

Properties (Physical/Chemical) Affecting Disposal

NA

14. Transport Information

Regulated for shipping?

Yes No

Proper Shipping Name

Clear chain long spool

Packing Group

NA

Do changes in quantity, packaging, or shipment method change product classification?

Yes No NA

Hazard Class

NA

Identification Number

NA

Other

Department of transportation (D.O.T): This product is not regulated by D.O.T. when shipped domestically by land.
Canadian TDG information: This product is not regulated by TDG when shipped domestically by land.



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15. Regulatory Information

Federal Regulations

SARA 313 Information: To the best of our knowledge, this product contains no chemical subject to SARA title III section 313 supplier notification requirements.

SARA Hazard category: This product has been reviewed according to the EPA "Hazard categories" promulgated under sections 311 and 312 of the superfund amendment and reauthorization act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories. Not to have met any hazard category.

Toxic substances control act (TSCA): All ingredients on the TSCA inventory or are not required to be listed on the TSCA inventory.

State right-to-know: This product is not known to contain any substances subject to disclosure requirements of New jersey and Pennsylvania.

OSHA hazard communication standard: This product is not a "hazardous chemical" as defined by the OSHA hazard communication standard, 29 CFR 1910.1200.

Comprehensive environmental response compensation and liability act: CERCLA or SUPERFUND: To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

International Regulations

Canadian regulations: WHMIS Information: The Canadian workplace hazardous materials information system (WHMIS classification for this product is "This product is not a 'controlled product' under WHMIS.

Canadian environmental protection act (CEPA): All substances in this product are listed on the Canadian domestic substances list (DSL) or are not required to be listed. CAS # 058180-53-3 is used in Canada in place of CAS# 110553-31-6

Other

MSDS Status: Revised section 15, Canadian regulations.

16. Other Information

Supplier Number: 25 / 59

Supplier Release: January 2, 2002

N/A = not applicable. NA = not available, N/E = not established. N/D = not determined.