

Material Safety Data Sheet (Component A)

GT Products Inc.
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Product Identification

Chemical family: Synthetic Urethane Polymer.
Product name: Ultrakast 600, 603, 604, 605, GTP CS 100, 100FR & 150.
Formula: The specific chemical formula for this material is a trade secret of GT Products, Inc.
C.A.S. number: 5124-30-1.

Composition Information / Ingredients

Ingredient Name / CAS Number	Exposure Limits	Concentration
Dicyclohexylmethane 4,4' Diisocyanate CAS number 5124-30-1	OSHA: .010 ppm ceiling ACGIH: .005 ppm TWA	Less than 1%

Synthetic urethane polymer containing trace amounts (less than 1%).
These limits are based on promulgated by the 1989 OSHA air contaminates standard 29 C 1910.0.

Hazardous Material Identification

Primary route(s) of entry: skin absorption, inhalation and ingestion.
Eyes: eye irritant, possible eye burns and vision failure.
Skin: skin irritant and possible skin sensitizer. Direct skin is the route most likely to cause sensitization. Once sensitized an individual may react to airborne levels below the TLV with the following symptoms, itching and tingling of the earlobe and hives, swelling of the arms and legs or other symptoms common to allergic dermatitis. Any individual having a sensitization reaction to this material should be removed from exposure to any isocyanate.
Inhalation: inhalation of vapors or spray mist may also cause irritation to the respiratory tract (dry throat, cough, shortness of breath and chest tightness). In addition sinusitis, bronchitis or respiratory sensitization (asthma-like symptoms) may occur. Exposure to Toluene may cause nausea, headaches, dizziness or any other central nervous system effects.

Emergency and first aid procedure

Eyes: flush with large amounts of water for at least 15 minutes. Seek medical attention immediately.
Skin: wash exposed area thoroughly with soap and water. Be sure to wash contaminated clothing before reusing. Seek medical attention.
Inhalation: move person into fresh air. Oxygen may be administered if available and needed. Seek medical attention immediately.
Ingestion: **do not** induce vomiting. Give glass of water or milk to drink. **Do not** give anything by mouth to an unconscious person. Seek medical attention immediately.

Fire and explosion hazard data

Flash point: not established.
Flammable limits (% by volume in air): upper – N/A, lower – N/A
Extinguishing media: water spray (fog), foam, dry chemical and carbon dioxide.
Special fire fighting procedures: full protective equipment with self-contained breathing apparatus should be worn.
Unusual fire and explosion hazards: keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Water spray may be used to cool closed containers and prevent pressure build-up. Empty containers may contain liquid or vapor, which is flammable or explosive. **Do not** weld, burn or cut empty containers.

Accidental release measures

Shut off and eliminate all ignition sources. Ventilate confined spaces. Workers should avoid direct skin or eye contact or inhalation of vapors. Absorb on dry inert material. Package for disposal.

Special precautions and storage data

Storage temperature: 38° C maximum.
Shelf life: minimum one (1) year at 75° F (23° C).
Keep containers closed when not in use. Keep away from heat, sparks and open flame. Store in tightly sealed containers and keep away from moisture and direct sunlight.
Wear personal protective equipment when working on equipment that may be contaminated with material.

Personal protection

Respiratory protection: if working in conditions where TLV is exceeded use a chemical cartridge mask or air supply hood as required and/or approved by ANSI and OSHA.
Ventilation: use with adequate forced air mechanical ventilation in accordance with OSHA regulations. Ventilation must be sufficient to prevent vapors from exceeding exposure limit(s) or build up of explosive concentrations of vapor in air.
Skin and eye protection: chemical resistant gloves, apron or coveralls and face shield are required. If protective creams are used minimize the area protected only by the cream.

Physical properties

Appearance: viscous liquid.
Odor: aromatic.
Color: clear or pigmented.
Boiling point: 450° F.
Specific gravity: 1.02.
Percent volatile (by volume): 0.
Evaporation rate (ether = 1): slower.
Vapor density (air = 1): greater.
Solubility in water: negligible, reacts slowly with water to liberate carbon dioxide gas.

Stability and reactivity

Stability: stable under normal conditions.

Conditions to avoid: contact with moisture and other materials that react with isocyanate. Temperatures above maximum storage temperature.

Incompatibility: contact with water, alcohols, amines and strong bases.

Hazardous decomposition products: by high heat and fire, carbon monoxide, carbon dioxide, oxides of nitrogen, traces of IICN isocyanate and solvent vapors.

Hazardous polymerization: will not occur under normal conditions.

Toxicological information

No data

Ecological information

No data

Disposal considerations

Dispose of in accordance with all local, state and federal regulations.

Shipping information

This material is not regulated as a DOT hazardous material.

Proper shipping name: Liquid resin non-regulated.

Technical shipping name: none.

Hazard class or division: none.

UN/NA number: none.

Packaging group: none.

DOT labels required: none.

DOT placards required: none.

Freight class: 55.

Regulatory information**California Proposition 65:**

Component A of this product does not contain any chemicals that are listed under California Proposition 65.

Material Safety Data Sheet (Component B)**Product Identification**

Chemical family: Aromatic Diamine Mixture.

Product name: Ultrakast 600, 603, 604, 605, GTP CS 100, 100FR & 150.

Formula: The specific chemical formula for this material is a trade secret of GT Products, Inc.

C.A.S. number: 68479-98-1.

Composition Information / Ingredients

Ingredient Name / CAS Number	Exposure Limits	Concentration
Diethylenetoluenediamine Mixture CAS number 68479-98-1	OSHA: none established ACGIH: none established	20% - 30%

Hazardous Material Identification

Primary route(s) or entry: skin absorption, inhalation and ingestion.

Eyes: expect to be an eye irritant.

Skin: expect to be harmful.

Inhalation: not expected to be a route of exposure due to low volatility at room temperature, however heated material may give off significant vapor.

A two-year feeding study in rats showed effects in the pancreas, liver, thyroid and eyes. An increase in the number of tumors in the liver and thyroid of male rats and in the liver and possible mammary glands of female rats was found.

In rare instances, sensation has been reported to occur in humans.

Emergency and first aid procedure

Inhalation: if inhaled remove to fresh air.

Eyes: immediately flush eyes with plenty of water for at least fifteen minutes. Seek medical attention.

Skin: immediately flush skin with plenty of water for at least fifteen minutes while removing contaminated clothing and shoes. Seek medical attention. Wash clothing before reusing.

Ingestion: induce vomiting, immediately giving two glasses of water and placing finger down throat. **Do not** give anything by mouth to an unconscious person. Seek medical attention.

Fire and explosion hazard data

Flammable limits: not established.

Flash point: > 275° F (135° C).

Extinguishing media: dry chemical, water spray (fog), foam or carbon dioxide.

Use water to cool containers exposed to fire. Avoid breathing smoke and vapor.

Accidental release measures

For all transportation accidents, call CHEMTREC at 800-424-9300.

Reportable quantity: not applicable (per 40 CFR 300.4).

Spill mitigation procedures: stop source of spill as soon as possible and notify appropriate personnel.

Air release: not applicable.

Water release: this material is slightly soluble in water and may be subject to emulsification. Divert flow of water and contain that which is contaminated. Remove as a liquid utilizing a vacuum or pumping system as possible.

Land spill: dike spill area and begin to remove as a liquid. If unable to do so, then absorb in clay, sand or a commercial absorbent and containerize for disposal. Compatible absorbents are sand and clay soil.

In case of fire, use normal fire fighting equipment. Additional respiratory protection is necessary when a spill or fire involving this product occurs. You are recommended to use a cartridge type NIOSH/OSHA approved respirator with dust/mist cartridges. Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hardhat, splash-proof goggles and impervious clothing i.e. chemically impermeable suite.

Special precautions and storage data

Do not store at temperatures above 120° F (49° C).

Product is hygroscopic; protect with padding of dry nitrogen. Calcium chloride drying system with silica gel on the vents can also be used.

Shelf life limitations: minimum 1 year (closed container).

Incompatible materials for packaging: use glass or vinyl lined containers. Recommend lined steel (Amercoat number 23 vinyl coating. Five-coat system), 304SS or equivalent.

Incompatible materials for storage on transport: strong oxidizers.

Personal protection

Eye protection: chemical goggles or face shield.

Respiratory protection: NIOSH approved organic vapor respirator when exposed to vapor from heated material.

Skin protection: Nitrile or neoprene rubber gloves. If skin contact or contamination of clothing is likely, protective clothing should be worn.

Local exhaust ventilation: at the source of vapor.

Mechanical ventilation: recommended.

Physical properties

Appearance: clear amber liquid.

Freezing point: no data.

Boiling point: 586° F (308° C).

Decomposition temperature: no data.

Specific gravity: 1.02.

Vapor pressure @ 25 ° C: < .001 mm Hg @ 20° C (60° F): 10 mm Hg @ 165° C (329° F).

Solubility in water: 1.0 weight % @ 20° C (68° F).

Volatile, percent by volume: 0.

Evaporation rate: not applicable.

Vapor density (air = 1): 6.2.

Odor: slightly musty to odorless.

Stability and reactivity

Conditions under which this product may be unstable:

Mechanical shock or impact: no.

Electrical (static) discharge: no.

Other: excessive heat.

Hazardous polymerization: will not occur.

Incompatible materials: strong oxidizers.

Hazardous decomposition product: carbon monoxide, carbon dioxide and other fragments, which have not been identified.

Summary of reactivity: oxidizer – no, pyrophoric – no, organic peroxide – no, water reactive – no.

Toxicological information

No data

Ecological information

No data

Disposal considerations

If this product becomes a waste, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

As a non-hazardous liquid waste, it should be disposed of in accordance with local, state and federal regulations by incineration.

Care must be taken to prevent environmental contamination from the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and non-hazardous wastes.

Shipping information

This material is not regulated as a DOT hazardous material.

Proper shipping name: Liquid resin non-regulated.

Technical shipping name: none.

Hazard class or division: none.

UN/NA number: none.

Packaging group: none.

DOT labels required: none.

DOT placards required: none.

Freight class: 65.

Regulatory information

Toxic substances control act: this substance is listed on the Toxic Substances Control Act inventory.

Superfund amendments and reauthorization act title III:

Hazard categories, for SARA 311312 are listed below:

Health – immediate (acute): yes.

Component B

Health – delayed (chronic): yes.
Physical – fire: no.
Physical sudden release of pressure: no.
Physical reactive: no.
Physical nuisance mist/dust only: no.

The following are WHMIS classifications for this product: class D division 2B emergency planning and community right to know, per 40 CFR. App. A:

Extremely hazardous substance:

Threshold planning quantity: none established.

Supplier notification requirements, per 40 CFR 372.45: none established.

California Proposition 65:

Component B of this product does not contain any chemicals that are listed under California Proposition 65.

Other information

The data in this Material Safety Data Sheet relates only to the material designated herein and does not relate to use in combination with any other material or in any process. Because conditions of use of this material are outside our control we make no warranty, expressed or implied, except that it is accurate to the best knowledge of GT Products, Inc. and we assume no liability in connection with any use of this material. The data on this sheet relates only to the specific material designated herein. GT Products, Inc. assumes no legal responsibility for use or reliance upon this data. This product is intended for use by persons having technical skills and at their own discretion and risks.

Prepared by: C. Mellema

Approval date: 01/02

Supercedes 01/01