

SAFETY DATA SHEET (SDS)

SECTION 1 - IDENTIFICATION

Product identifier	AC-130 A
Other means of identification	None
Recommended use and restrictions on use	Construction product / Refer to technical information
Initial supplier identifier	Meghan's Supply & Design // BallistiX 11720 Main St Suite 120, Fredericksburg, VA 22408, United States +1 540-940-6698
Emergency telephone number/restriction on use	Canada – CANUTEC 24 hour number 613-996-6666

SECTION 2 - HAZARD IDENTIFICATION

Classification of hazardous product (name of the category or subcategory of the hazard class)	Specific Target Organ Toxicity -Single Exposure (Respiratory Tract Irritation) - Category 3 Specific Target Organ Toxicity - Repeated Exposure - Category 2 Skin Irritation - Category 2 Respiratory Sensitizer (Solid/Liquid) - Category 1 Skin Sensitizer - Category 1 Carcinogenicity - Category 2 Eye Irritation - Category 2 Acute toxicity Oral Category 5
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Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)	H335 - May cause respiratory irritation H373 - May cause damage to organs through prolonged or repeated exposure. H315 - Causes skin irritation H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H317 - May cause an allergic skin reaction H351 - Suspected of causing cancer. H319 - Causes serious eye irritation H303 - May be harmful if swallowed
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P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P103 - Read label before use. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P271 - Use only outdoors or in a well-ventilated area. P233 - Keep container tightly closed. P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P284 - [In case of inadequate ventilation] wear respiratory protection. P272 - Contaminated work clothing should not be allowed out of the workplace. P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 - Call a POISON CENTER/doctor if you feel unwell. P314 - Get Medical advice/attention if you feel unwell. P302 + P352 - IF ON SKIN: Wash with plenty of water. P321 - Specific treatment (see section 4 on this SDS). P332 + P313 - If skin irritation occurs: Get medical advice/attention. P362 + P364 - Take off contaminated clothing. And wash it before reuse. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER/doctor. P333 + P313 - If skin irritation or a rash occurs: Get medical advice/attention. P308 + P313 - IF exposed or concerned: Get medical advice/attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice/attention. P403 + P405 - Store in a well-ventilated place. Store locked up. P405 - Store locked up. P501 - Dispose of contents/ container to an approved waste disposal plant.

Other Hazards Known	None
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SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name (common name/synonyms)	CAS NUMBER or other	Concentration (%)
4,4'-METHYLENEDIPHENYL DIISOCYANATE	101-68-8	64 - 100
MDI (MONOMER)	26447-40-5	1.7 - 3

All ingredients are listed according to OSHA (29 CFR).

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) considered trade secret(s).

SECTION 4 - FIRST AID MEASURES

Inhalation: Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. If exposed/feel unwell/concerned: Call a POISON CENTER/doctor. Eliminate all ignition sources if safe to do so.

Skin Contact: Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Gently blot or brush away excess product. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before re-use or discard. IF exposed or concerned: Get medical advice/attention.

Eye Contact: Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Give 1 or 2 glasses of milk or water to drink and get medical attention/advice. IF exposed or concerned: Get medical advice/attention.

SECTION 5 - FIREFIGHTING MEASURES

Suitable Extinguishing Media: Dry chemical, foam, carbon dioxide is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Sand or earth may be used for small fires only.

Unsuitable Extinguishing Media: If water is used, use very large quantities of cold water. The reaction between water and hot isocyanate may be vigorous.

Specific Hazards in Case of Fire: Excessive pressure or temperature may cause explosive rupture of containers. Water contamination will produce carbon dioxide. Do not reseal contaminated containers as pressure buildup may rupture them.

Fire-fighting Procedures: Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions: Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required. Care should always be exercised in dust/mist areas.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Emergency Procedure: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Isolate hazard area and keep unnecessary people away. Remove all possible sources of ignition in the surrounding area. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. If spilled material is cleaned up using a regulated solvent, the resulting waste mixture may be regulated.

Recommended Equipment: Appropriate dust or face mask to eliminate breathing foam dust particulates.

Personal Precautions: Avoid breathing vapors. Avoid contact with skin, eyes or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

Environmental Precautions: Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

Methods and Materials for Containment and Cleaning up: Cover container, but do not seal, and remove from work area. Prepare a decontamination solution of 2.0% liquid detergent and 3-8% concentrated ammonium hydroxide in water (5-10% sodium carbonate may be substituted for the ammonium hydroxide). Treat the spill area with the decontamination solution, using about 10 parts of the solution for each part of the spill, and allow it to react for at least 15 minutes. Carbon dioxide will be evolved, leaving insoluble polyureas. Residues from spill cleanup, even when treated as described may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. Slowly stir the isocyanate waste into the decontamination solution described above. Let stand for 48 hours, allowing the evolved carbon dioxide to vent away, residues may still be subject to RCRA storage and disposal requirements. Dispose off in compliance with all relevant local, state, and federal laws and regulations regarding treatment.

SECTION 7 - HANDLING AND STORAGE

General: Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas.

Ventilation Requirements: Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

Storage Room Requirements: Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight, strong oxidizers and any incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.

Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored.

Keep liquid and vapors away from sparks and flame, store in containers above ground and surrounded by dikes to contain spills or leaks. Do not cut, drill, grind, weld, or perform similar operations on or near containers.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection: Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection: If airborne concentrations exceed or are expected to exceed the TLV, use MSHA/NIOSH approved positive pressure supplied air respiratory with a full face piece or an air supplied hood. For emergencies, use a positive pressure self-contained breathing apparatus. Air purifying (cartridge type) respirators are not approved for protection against isocyanates.

Appropriate Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance / color	Liquid	Vapour pressure	Not available
Odour	Characteristic	Vapour density	Heavier than air
Odour threshold	Not available	Relative density	10.16 lb/gal
pH	Not available	Solubility	Reacts with Water
Melting point / Freezing point	Not available	Partition coefficient of n-octanol/water	Not available
Low boiling point	200 °C	Auto-ignition temperature	Not available
Flash point	150 °C	Decomposition temperature	Not available
Evaporation rate	Slower than ether	Viscosity	Not available
Flammability (solid, gas)	Not available	VOC	0.00 lb/gal
Upper/Lower flammability or explosive limits	Not available	Specific gravity	1.22

SECTION 10 - STABILITY AND REACTIVITY

Stability: Material is stable at standard temperature and pressure.

Conditions to Avoid: Heat, high temperature, open flame, sparks, and moisture. Contact with incompatible materials in a closed system will cause liberation of carbon dioxide and buildup of pressure

Hazardous Reactions/Polymerization: Will not occur under normal conditions but under high temperatures above 204°C, in the presence of moistures, alkalis, tertiary amines, and metal compounds will accelerate polymerization. Possible evolution of carbon dioxide gas may rupture closed containers.

Incompatible Materials: This product will react with any material containing active hydrogens, such as water, alcohol, ammonia, amines, alkalis and acids, the reaction with water is slow under 50°C, but is accelerated at higher temperature and in the presence of alkalis, tertiary amines, and metal compounds. Some reactions can be violent. Material can react with strong oxidizing agents.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, nitrogen oxides, trace amounts of hydrogen cyanide and unidentified organic compounds may be formed during combustion.

SECTION 11 - TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation: Isocyanates react with skin protein and moisture and can cause irritation. Prolonged contact can cause reddening, swelling, rash, scaling, blistering, and, in some cases, skin sensitization. Individuals who have developed a skin sensitization can develop these symptoms as a result of contact with very small amounts of liquid material or as a result of exposure to vapor. Causes skin irritation

Serious Eye Damage/Irritation: Liquid, aerosols or vapors are severely irritating and can cause pain, tearing, reddening and swelling. Prolonged vapor contact may cause conjunctivitis. Any level of contact should not be left untreated. Causes serious eye irritation

Carcinogenicity: Suspected of causing cancer. **Respiratory/Skin Sensitization:** May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction **Germ Cell Mutagenicity:** No data available **Reproductive Toxicity:** No data available

Specific Target Organ Toxicity - Single Exposure: High vapor concentrations may cause central nervous system (CNS) depression as evidenced by giddiness, headache, dizziness, and nausea. Persons with a preexisting, nonspecific bronchial hyperactivity can respond to concentrations below the TLV with similar symptoms as well as asthma attack. Exposure well above the TLV may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). As a result of previous repeated overexposures or a single large dose, certain individuals may develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. May cause respiratory irritation

Specific Target Organ Toxicity - Repeated Exposure: Chronic overexposure to isocyanate has also been reported to cause lung damage (including decrease in lung function) which may be permanent. May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: No data available

Acute Toxicity: No data available

0000101-68-8 4,4'-METHYLENEDIPHENYL DIISOCYANATE
LC50 (rat): 369-490 mg/m³ (aerosol) (4-hour exposure) (1)
LC50 (rat): 178 mg/m³ (17.4 ppm) (duration of exposure not reported) (2)
LD50 (oral, rat): greater than 10,000 mg/kg (1,2) LD50 (dermal, rabbit): greater than 10,000 mg/kg (1)
LD50 (oral, mouse): 2,200 mg/kg (3)

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial information)	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available.
Other adverse effects	No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Information on safe handling for disposal/methods of disposal/contaminated packaging

Dispose of contents/container into safe container in accordance with local, regional or national regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations: NOT REGULATED
UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime): NOT REGULATED.
UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air): NOT REGULATED.
Special Precautions (transport/conveyance): None known
Environmental hazards (IMDG or other): None known
Bulk transport (usually more than 450L in capacity): Possible

SECTION 15 - REGULATORY INFORMATION

Safety/health Canadian regulations specifics	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
Environmental Canadian regulations specifics	Refer to Section 3 for ingredient(s) of the DSL
Safety/health/environmental outside regulations specifics	United States OSHA information: This product is regulated according to OSHA (29 CFR). United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14. United States TCSA information: Refer to the ingredients listed in Section 3.
Bioaccumulative potential	
National Fire Protection Association (NFPA)	HEALTH: 2 FLAMMABILITY: 1 INSTABILITY: 1 SPECIAL HAZARDS: Refer to Section 2 & 3. HAZARD SCALE: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

SECTION 16 - OTHER INFORMATION

Date of the latest revision of the safety data sheet	JUNE 7, 2022 version 2.0
Corrections	SDS Template modifications
References	Safety Data Sheets from manufacturer/supplier
Abbreviations	ACGIH American Conference of Governmental Industrial Hygienists ATE Acute toxicity estimate CAS Chemical Abstract Service DSL Domestic Substance List IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods Code LC Lethal concentration LD Lethal Dosage NIOSH National Institute for Occupational Safety and Health NTP National Toxicology Program (U.S.A.) OSHA Occupational Safety and Health Administration (U.S.A.) PEL Permissible Exposure Limit STEL Short-term Exposure Limit TDG Transport of dangerous goods in Canada TLV Threshold Limit Value TSCA Toxic Substances Control Act TWA Time Weighted Average WH-MIS Workplace Hazardous Materials Information System

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