SAFETY DATA SHEET

Section 1: Product and Company Identification

Product Name: BlackTop

Product Use: Black Paint, Chassis Paint, Top Coat

Manufacturer: Advanced Protective Technologies, LLC.
1101 Cumberland Xing #180
Valparaiso, IN 46383

Phone Number: 1-877-548-9323 EMERGENCY: Infotrac 800-535-5053

Section 2: Hazards Identification

NPFA (USA)	WHMIS Classification (Canada)	Transport Symbol	Personal Protective Equipment
	Consumer Product **Not Regulated under WHMIS** **Classifications for workplace** B2 D1A D2A, D2B	Not Regulated	

Appearance, Color and Odor: Black liquid with solvent odor

Harmful by inhalation. Irritating to eyes, respiratory system and skin. inhalation and skin contact.
Toxic gases/fumes may be given off during burning or thermal decomposition.
Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water.

USA: While this material is a Consumer Commodity, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
This product is a hazardous material as defined by 29 CFR1910.1200, OSHA Hazard Communication Evaluation.

Canada: As packaged this product is intended for consumer use, subject to the labeling requirements of the CCCR. While this product is not regulated under WHMIS, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Potential Health Effects: ACUTE (short term): see Section 8 for exposure controls

Relevant Route(s) of Exposure: Inhalation, Ingestion, Skin contact, Eye contact

Inhalation:

Short-term inhalation can cause respiratory and mucous membrane irritation. Symptoms include eye and nose irritation, dry or sore throat, runny nose, shortness of breath, wheezing and laryngitis. Coughing with chest pain or tightness may also occur, frequently at night.
Mists or vapors can probably cause headache, nausea, dizziness, reduced concentration, loss of coordination and other symptoms of central nervous system (CNS) depression.
Overexposure to vapors, above the exposure limits listed in Section 8, may lead to bronchitis, bronchial spasm, and pulmonary edema (fluid in the lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms of fever and chills, may also occur. These symptoms may occur during exposure or may be delayed several hours.

Ingestion:

Harmful if swallowed; may cause lung damage if swallowed. Ingestion may cause severe irritation to the mouth and digestive system. May cause vomiting. Small amounts of this product drawn into the lungs during ingestion or vomiting could cause a potentially life- threatening accumulation of fluid (pulmonary edema). Ingestion is not a typical route of occupational exposure.

Skin:

Irritating to the skin with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove.

Eye:

Direct contact with the eyes may cause severe irritation including tearing, excess redness and swelling of the conjunctiva.

CHRONIC (long term): see Section 11 for additional toxicological data

Repeated or prolonged skin contact may cause dermatitis, with redness, blisters, cracking and swelling of the skin.

Sensitization through inhalation or skin exposure:

Individuals sensitized from prior contact to diisocyanates may experience asthma-like symptoms and/or allergic skin reactions. Respiratory symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Skin symptoms may include redness, scaling, rash, itching, hives and swelling of the arms and legs which can spread to the face and bodyEffects may be delayed. Occasionally, breathing difficulty may be life threatening. Decreased lung function has been associated with overexposure to diisocyanates.

Long-term, high level exposure to organic solvents has been associated with a condition called "organic solvent syndrome". Symptoms such as excessive fatigue, reduced memory, pain and numbness in the legs, arms, hands and feet and behavioral changes have been observed in some people with long-term, high-level occupational exposure to organic solvents.

Medical Conditions Aggravated by Exposure:

Skin contact may aggravate an existing dermatitis. Asthma and other restrictive lung disorders, skin allergies and eczema may be aggravated by exposure to this product.

Interactions With Other Chemicals: Not Available.

Potential Environmental Effects: Not available. Do not allow the product to be released into the environment.

Section 3: Composition / Information on Ingredients

Hazardous Ingredients:

Chemical Name	CAS No.	Wt. %
Aromatic hydrocarbon	64742-95-6	10 - 30
Polyether polyol	25322-69-4	10 - 30
Carbon black	1333-86-4	5 - 10
Homopolymer of hexamethylene diisocyanate	28182-81-2	5 - 10
1,2,4-Trimethylbenzene	95-63-6	5 - 10
Tert-Butyl acetate	540-88-5	5 - 10
Silicon dioxide, amorphous, precipitated	112926-00-8	1 - 5
Ethyl acetate	141-78-6	.5 – 1.5
n-Butyl acetate	123-86-4	.5 – 1.5
Xylene	1330-20-7	.1 – 1.0

Note: See Section 8 of this MSDS for exposure limit data for these ingredients

Section 4: First Aid Measures

Inhalation:

This product is flammable. Take proper precautions (e.g. remove any sources of ignition). Take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment, use the buddy system). Remove source of contamination or move victim to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen. Do not allow victim to move about unnecessarily. Symptoms of pulmonary edema may be delayed up to 48 hours after exposure. Quickly transport victim to an emergency care facility.

Eye Contact:

Quickly and gently blot or brush away chemical. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the chemical is removed, while holding the eyelid(s) open. If a contact lens is present, do not delay irrigation or attempt to remove the lens. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.

Skin Contact:

Quickly and gently, blot or brush away excess chemical. As quickly as possible, remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with water and non-abrasive soap for 5 minutes or until the chemical is removed. If irritation persists, obtain medical attention. Completely decontaminate clothing, shoes and leather goods before re-use, or discard.

Ingestion:

If irritation or discomfort occurs, obtain medical advice immediately.

Notes to Physician:

Product contains diisocyanate polymer. Persons sensitized to diisocyanates may have an allergic respiratory response, asthma-like symptoms and/or allergic skin reactions.

Section 5: Fire Fighting Measures

Flammable Properties:

Flammable liquid (Flashpoint 4°C/39°F). During a fire, irritating, toxic and/or hazardous substances may be generated.

Suitable extinguishing Media:

Carbon dioxide, dry chemical powder, alcohol foam. Using water may cause frothing with increasing fire intensity. Water spray may be used to cool fire-exposed, closed containers.

Unsuitable extinguishing Media:

Water: Hot product can react vigorously with water, generating CO2. Reaction can be vigorous.

Explosion Data:

Sensitivity to Mechanical Impact: Not Available

Sensitivity to Static Discharge:

Vapors from the heated liquid, at concentrations in the flammable range, can probably be ignited by a static discharge.

Specific Hazards arising from the Chemical:

Can release vapors that form explosive mixtures with air, at, or above 40°C. Liquid can float on water and may travel to distant locations and/or spread fire. Closed container may rupture violently when exposed to fire or excessive heat or when contents are contaminated with water (CO2 formed). During a fire, isocyanate vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. Exposure to heated diisocyanate can be extremely dangerous.

Protective Equipment and precautions for firefighters:

As for any fire, evacuate the area and fight the fire from a safe distance. Wear a pressure-demand, self-contained breathing apparatus and full protective gear. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

NFPA

Health: 2

Flammability: 4
Instability: 1

Section 6: Accidental Release Measures

Personal Precautions:

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Do not touch the spilled material. Wear adequate personal protective equipment. Extinguish or remove all ignition sources. Ventilate area.

Environmental Precautions:

Prevent material from contaminating soil and from entering sewers or waterways.

Methods for Containment:

Isolate the spill area. Shut off the leak if it is safe to do so. Contain the liquid immediately using a suitable inert absorbent (sand, clay, vermiculite).

Methods for Clean-up:

Scoop up contaminated absorbents and place into suitable disposal containers. Collect all spilled material, contaminated absorbents and contaminated water for proper treatment or disposal. Contaminated absorbents pose the same hazards as the spilled product. Flush the contaminated area with water.

Section 7: Handling and Storage

Handling:

Prevent contact with eyes, skin and clothing. Wear protective goggles and gloves. Avoid breathing mists and vapors from this product. Wash hands thoroughly after handling this product. Observe the recommended exposure limits (Section 8). See Section 8 for Personal Protective Clothing and Equipment.
This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with skin and eyes. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating.

Storage:

KEEP LOCKED UP AND OUT OF THE REACH OF CHILDREN. Store in a cool, dry, well ventilated area. Keep from freezing. Store product between 5 and 35°C (41 and 95°F). Keep container tightly closed when not in use. Store product in its original container. Do not reseal the container if contamination of the product is suspected.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

Ingredient	ACGIH TLV (8-hr. TWA)	U.S. OSHA PEL (8-hr. TWA)	Ontario (Canada) TWAEV
Aromatic hydrocarbon	Not established	Not established	Not established
Polyether polyol	Not established	Not established	Not established
Carbon black	3.5 mg\m^3	3.5 mg\m^3	3.5 mg\m^3
Homopolymer of hexamethylene diisocyanate	Not established	Not established	Not established
1,2,4-Trimethylbenzene	25 ppm	25 ppm	25 ppm 123 mg\m^3
Tert-Butyl acetate	200 ppm	200 ppm 950 mg\m^3	200 ppm 950 mg\m^3
Silicon dioxide, amorphous, precipitated	Not established	20 mppcf or 80 mg/m^3 / (%Si02)	10 mg/m^3
Ethyl acetate	400 ppm	400 ppm 1440 mg\m^3	400 ppm 1440 mg\m^3
n-Butyl acetate	150 ppm	150 ppm; 710 mg\m^3	150 ppm; 710 mg\m^3

	STEL 200 ppm		STEV 200 ppm; 950 mg\m^3
Xylene	100 ppm STEL: 150 ppm	100 ppm/435 mg/m^3 STEL: 150 ppm/650 mg/m^3	100 ppm/435 mg/m^3 STEL: 150 ppm/650 mg/m^3

Other Exposure Limits:

The AIHA (American Industrial Hygiene Association) recommends a WEEL (Workplace Environmental Exposure Level) to the polyether polyol of 10 mg/m3 TWA.

Exposure Controls:

Engineering Controls:

Engineering control methods to reduce hazardous exposures are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions and process modification. Administrative controls and personal protective equipment may also be required.

Personal Protection:

Eye/Face Protection:

Wear chemical splash goggles. Wear a face shield when needed to prevent splashing into the face.

Skin Protection:

Wear impermeable protective gloves and clean body-covering clothing to prevent contact with the skin. Impermeable apron, arm covers and boots should be worn when needed to prevent skin contact.

Respiratory Protection:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or Canadian Standards Association (CSA) Standard Z94.4-93 must be followed whenever workplace conditions warrant a respirator's use.

Where occupational exposure limits are exceeded, workers should wear an approved respirator. Consult with respirator manufacturer to determine respirator selection, use and limitations.

Other Protective Equipment:

In industrial settings, have an eyewash fountain and safety shower in the immediate work area.

General Hygiene Measures:

Remove contaminated clothing promptly. Launder contaminated clothing before re-wearing or discard. Do not eat, drink or smoke in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

Section 9: Physical and Chemical Properties

Physical State:	Liquid	**Flash Point & method:**	4°C (39°F); method not available
Appearance, Color and Odor:	Black	**Autoignition Temperature:**	250°C (282°F)
Odor Threshold	Not available	**Flammability Limits in Air:**	Not applicable
pH:	Not available	**Vapor Pressure:**	Not available
Specific Gravity: (water = 1)	1.05	**Vapor Density: (Air = 1)**	Not available
Partition coefficient: (n-octanol/water)	Not available	**Evaporation Rate: (n-Butyl Acetate = 1)**	Not available
Solubility:	Insoluble in water	**Boiling Point/Range:**	101°C (213°F)
Viscosity:	Not available	**Freezing Point:**	-7°C (19°F)
Decomposition Temperature:	Not available		

Section 10: Stability and Reactivity

Chemical Stability:

Stable under recommended conditions of storage and use.

Conditions to Avoid:

Avoid moisture, contact with water, heat and direct sunlight.

Incompatible Materials:

Water - Reacts slowly, forming carbon dioxide and inert material comprised of non-toxic polyureas which could rupture closed containers. 4,4'-Methylene dianiline is formed as an intermediate product in this reaction. Above 50°C (122°F), the reaction may become progressively more vigorous.
Amines, alcohols, acids, bases - May react violently with generation of heat.
Metal compounds (e.g. organotin catalysts) - May polymerize with the generation of heat and pressure.
Amides, phenols, mercaptans, urethanes, ureas and surface active compounds - (surfactants, e.g. non-ionic detergents) - May react vigorously or violently with the generation of heat.

Hazardous Decomposition Products:

Thermal decomposition may release oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanate, isocyanic acid.

Possibility of Hazardous Reactions:

Product may undergo uncontrolled exothermic polymerization upon contact with incompatible materials, especially strong bases, or if heated above 177°C (350°F). The resulting pressure build-up could rupture closed containers.

Section 11: Toxicological Information

Acute Toxicity Data

Ingredient	LD_{50} Oral (mg/kg)	LD_{50} Dermal (mg/kg)	LC_{50} Inhalation (4 hrs.) (mg/m^3)
Aromatic hydrocarbon	>5 000 (rat)	Not available	Not available
Polyether polyol	Not available	>10 000 (rabbit)	Not available
Carbon black	Not available	Not available	6 7500 (rat)
Homopolymer of hexamethylene diisocyanate	>5 000 (rat)	>5 000 (rat)	390 – 453, aerosol (rat)
1,2,4-Trimethylbenzene	5 000 (rat)	Not available	18 000 (rat)
Tert-Butyl acetate	Not available	Not available	Not available
Silicon dioxide, amorphous, precipitated	Not available	Not available	Not available
Ethyl acetate	>4 000 (mouse)	>18 000 (rabbit)	>30 000
n-Butyl acetate	7 100 (mouse)	>5 000 (rabbit)	1 800 (rat)
Xylene	> 5 200 (rat, mouse)	> 1 700 (rabbit)	> 6 300 ppm (rat)

Chronic Toxicity Data

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

Ingredient	ACGIH	IARC	NTP	OSHA
Aromatic hydrocarbon	Not Listed	Not Listed	Not Listed	Not Listed
Polyether polyol	Not Listed	Not Listed	Not Listed	Not Listed
Carbon black	A4	Group 2B	Not Listed	Not Listed
Homopolymer of hexamethylene diisocyanate	Not Listed	Not Listed	Not Listed	Not Listed
1,2,4-Trimethylbenzene	Not Listed	Not Listed	Not Listed	Not Listed
Tert-Butyl acetate	Not Listed	Not Listed	Not Listed	Not Listed
Silicon dioxide, amorphous, precipitated	Not Listed	Group 3	Not Listed	Not Listed
Ethyl acetate	Not Listed	Not Listed	Not Listed	Not Listed
n-Butyl acetate	Not Listed	Not Listed	Not Listed	Not Listed
Xylene	A4	Group 3	Not Listed	Not Listed

ACGIH: (American Conference of Governmental Industrial Hygienists)
A4-Not Classifiable as a Human Carcinogen
IARC: (International Agency for Research on Cancer)
Group 2B: - The agent is possibly carcinogenic to humans.
Group 3: Not classifiable as to its carcinogenicity in humans.
NTP: (National Toxicity Program)
OSHA: (US Occupational Safety and Health Administration)

Genetic Effects: Not Available
Reproductive Effects: Not Available
Developmental Effects: Mixed xylenes are considered fetotoxic, based on observations of reduced fetal weight, delayed ossification and persistent behavioral effects, in the absence of maternal toxicity.
Other Adverse Effects: Not available
Target Organ Effects: Eyes, skin, respiratory system, Central Nervous System (CNS).

Section 12: Ecological Information

Ecotoxicity: Not Available
Persistence/Degradability: Not Available
Bioaccumulation/Accumulation: Not Available
Mobility: Not available
Other adverse effects: Not available. Do not allow the material to be released into the environment

Section 13: Disposal Considerations

Waste Disposal Method: Do NOT dump into any sewers, on the ground or into any body of water. Store material for disposal as indicated in Section 7 Handling and Storage.
US EPA Waste Number: Dispose of in accordance with local, state and federal laws and regulations.
Canada: Dispose of in accordance with local, provincial and federal laws and regulations.

Section 14: Transport Information:

U.S. Hazardous Materials Regulation (DOT 49CFR):
As packaged this material can be shipped as a “Consumer Commodity ORM-D” Exemption. Shipment from US going to Canada may transport as per 49 CFR (TDG Section 9.1)

Canadian Transportation of Dangerous Goods (TDG):
As packaged this material can be shipped as a “Consumer Commodity” as per part 1.17 of the TDG Regulations. Shipment from Canada to the US may transport as per TDG Regulations (49 CFR Part 171.12a)

ADR/RID: As packaged this product may be shipped as a Limited Quantity.

IMDG: Petroleum distillates N.O.S., Class 3, UN1268, PG II, Flashpoint 4°C,
LIMITED QUANTITY

Marine Pollutants: Not applicable

ICAO/IATA: UN 1268 Petroleum distillates N.O.S., Class 3, PG II

Section 15: Regulatory Information:

USA

TSCA Status: All ingredients in the product are listed on the TSCA inventory.

SARA Title III
Sec. 302/304: None
Sec. 311/312: Acute; Chronic; Flammable
Sec. 313: 1,2,4-Trimethylbenzene (95-63-6); Xylene (1330-20-7).
CERCLA RQ: tert-Butyl acetate 5 000 lbs (2 270 kg); n-Butyl acetate 5 000 lbs (2 270 kg); Ethyl acetate 5 000 lbs

(2 270 kg)

California 65: This product contains the following chemicals known to the State of California to cause cancer: Carbon Black*.
*As sold, this product does not contain Carbon Black as airborne, or unbound particles of respirable size, and is therefore not subject to California Prop 65.

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Classification (for workplace exposures):

B2 – Flammable liquid
D1A – Immediate and serious toxic effects
D2A – Materials causing other toxic effects – Due to embryotoxicity.
D2B – Material causing other toxic effects – Due to skin and eye irritation.

NSNR Status (New Substance Notification Regulations):

All ingredients in the product are listed on Canada's Domestic Substances List (DSL).

NPRI Substances (National Pollutant Release Inventory:

Solvent naphtha (petroleum) light (64742-95-6); 1,2,4-Trimethylbenzene (95-63-6); n-butyl acetate (123-86-4); Ethyl acetate (141-78-6); Xylene (1330-20-7). These substances are all NPRI reportable.

Section 16: Other Information

Preparation Date: October 5, 2021

Disclaimer:

While Advanced Protective Technologies, LLC believes that the data set forth herein is accurate, as of the date hereof, Advanced Protective Technologies, LLC makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation, and verification.