Section 1 - Chemical Product and Company Information

Product Name: True Finish Urethane Clearcoat Hardener-Medium Manufacturer/Supplier: TRANSTAR AUTOBODY TECHNOLOGIES 2040 Heiserman Dr. Brighton, MI, 48114, USA Product Code: 5902-04, 5902-07

CHEMTREC 24 Hour Emergency Phone(s): USA & Canada 800-424-9300 International +1 703 741-5970

Business Phone: 800-824-2843 SDS Prepared By: Transtar Autobody Technologies

Distributor (if applicable):

Product Use: Activator. For Professional and Industrial Use Only Not recommended for: Not for sale to the general public

Section 2 - Hazards Identification

Classification of the substance or mixture

GHS Ratings:

Flammable liquid	3	Flash point >= 23°C and <= 60°C (140°F)
Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=20000ppm, Vapors>10+<=20mg/l,
		Dusts&mists>1+<=5mg/l
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Organ toxin single exposure	3	Transient target organ effects- Narcotic effects- Respiratory tract irritation

GHS Hazards

H226	Flammable liquid and vapor
H317	May cause an allergic skin
	reaction
H332	Harmful if inhaled
H334	May cause allergy or asthma
	symptoms or breathing difficulties
	if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or
	dizziness

GHS Precautions

P101 If medical advice is needed	eded, have
product container or la	bel at hand
P102 Keep out of reach of cl	nildren
P103 Read label before use	
P210 Keep away from heat,	hot surfaces,
sparks, open flames ar	nd other ignition
sources - No smoking	
P240 Ground and bond cont	ainer and
receiving equipment	
P241 Use explosion-proof el	ectrical,
ventilating, lighting and	l motorized
equipment	
P242 Use only non-sparking	tools
P243 Take precautionary me	asures against
static discharge	
P261 Avoid breathing dust, r	nist, vapors and
spray	
P271 Use only outdoors or ir	n a well-ventilated
area	
P272 Contaminated work clo	othing should not
be allowed out of the w	vorkplace

P280	Wear protective gloves, protective clothing, eye protection, face protection
P285	and respiratory protection. In case of inadequate ventilation wear respiratory protection
P312	Call a POISON CENTER or doctor if you feel unwell
P363	Wash contaminated clothing before reuse
P303+P361+P353	IF ON SKIN (or hair): Immediately take off all contaminated clothing. Wash skin with soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P333+P313	If skin irritation or a rash occurs: Get medical advice
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor
P370+P378	In case of fire: Use dry chemical, CO2, foam or water fog to extinguish
P405	Store locked up
P403+P233+P235	Store in a well ventilated place. Keep container tightly closed. Keep Cool.
P501	Dispose of contents and container in accordance with local, regional, national and international regulations.





Hazards not otherwise classified (HNOC) or not covered by GHS: None known

The following % of the mixture consists of ingredient(s) of unknown acute toxicity. 0%

Section 3 - Composition						
Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits			
Homopolymer of HDI 28182-81-2 30 to 40%	Not Available	Not Available				
Methyl n-Amyl Ketone 110-43-0 20 to 30%	100 ppm TWA; 465 mg/m3 TWA	50 ppm TWA	NIOSH: 100 ppm TWA; 465 mg/m3 TWA			

Homopolymer of IPDI 53880-05-0 10 to 20%	Not Available	Not Available	
Aromatic petroleum distillates 64742-95-6 5 to 10%	Not Established	Not established	REL-TWA (NIOSH): 350 mg/m3 PEL-TWA(OSHA): 2000 mg/m3
n-Butyl Acetate 123-86-4 1 to 5%	150 ppm TWA; 710 mg/m3 TWA	200 ppm STEL 150 ppm TWA	NIOSH: 150 ppm TWA; 710 mg/m3 TWA 200 ppm STEL; 950 mg/m3 STEL
Chlorobenzotrifluoride 98-56-6 1 to 5%	Not Established	Not Established	

Section 4 - First Aid Measures

INHALATION: Remove person to fresh air and keep comfortable for breathing. If breathing difficulty persists, seek medical attention.

EYE CONTACT: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for a minimum of 15 minutes while holding eye lids open. If eye irritation persist: seek medical attention.

SKIN CONTACT: Take off all contaminated clothing immediately. Wash exposed area thoroughly with soap and water. Seek medical attention if irritation persists. Do NOT use solvents or thinners to wash off.

INGESTION: If swallowed, seek medical attention immediately and have product container or label at hand. Rinse mouth and drink plenty of water. DO NOT INDUCE VOMITING unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person..

Most important symptoms and effects, both acute and delayed:

Dizziness, breathing difficulty, headaches, & loss of coordination. Can cause skin and respiratory sensitization and allergic reaction.

Indication of any immediate medical attention and special treatment needed.

Seek professional medical attention for all over-exposures and/or persistent problems.

Section 5 - Fire Fighting Measures

LEL: 0.9 %

UEL: 10.5 %

Extinguishing Media: Dry Chemical, Foam, CO2 or water fog.

Unsuitable Extinguishing Media: High volume water jets

Unusual Fire and Explosion Hazards: Vapors can travel to a source of ignition and flash back. Closed containers may explode when exposed to extreme heat or burst when contaminated with water (CO2 gas evolved). Hazards apply to empty containers. Combustion generates toxic fumes.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, oxides of nitrogen.

Special Firefighting Procedures: Highly toxic fumes may be generated by thermal decomposition. Water runoff from firefighting can cause environmental damage. Dike and collect water used to fight fire.

Fire Equipment: Full fire fighter equipment including SCBA should be worn to avoid skin contact and inhalation of concentrated vapors. Minimize skin exposure.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapors and mist. Ensure adequate ventilation. Eliminate all sources of ignition. Evacuate pesonnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up:

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcolol (50 parts), concentrated ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts), water (95 parts).

Section 7 - Handling & Storage

Safe Handling Measures: Persons with a history of skin or respiratory sensitization problems should not be employed or around any process in which this mixture is being used. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Ground and bond container and receiving equipment. Use non-sparking tools and explosion proof equipment when handling this material. Keep away from sources of ignition - No Smoking. Use in cool, well-ventilated areas. Keep containers closed when not in use. Take measures to prevent the build up of electrostatic charge. Follow all SDS/label precautions even after container is emptied because they may retain product residues. For precautions see section 2.

Storage Requirements: Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces-No Smoking. Store in a cool, dry and well-ventilated place. Do not reuse container when empty. Store separately from oxidizing agents, strongly alkaline and strongly acidic materials, amines, alcohols and water. Precautions should be taken to avoid exposure to atmospheric humidity or water. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Homopolymer of HDI 28182-81-2	Not Available	Not Available	
Methyl n-Amyl Ketone 110-43-0	100 ppm TWA; 465 mg/m3 TWA	50 ppm TWA	NIOSH: 100 ppm TWA; 465 mg/m3 TWA
Homopolymer of IPDI 53880-05-0	Not Available	Not Available	
Aromatic petroleum distillates 64742-95-6	Not Established	Not established	REL-TWA (NIOSH): 350 mg/m3 PEL-TWA(OSHA): 2000 mg/m3
n-Butyl Acetate 123-86-4	150 ppm TWA; 710 mg/m3 TWA	200 ppm STEL 150 ppm TWA	NIOSH: 150 ppm TWA; 710 mg/m3 TWA 200 ppm STEL; 950 mg/m3 STEL
Chlorobenzotrifluoride 98-56-6	Not Established	Not Established	

Section 8 - Exposure Controls/Personal Protection

Engineering Controls: Ground and bond container and reciving equipment. Use explosion-proof electrical, ventilating, lighting and motorized equipment. Use non-sparking tools. Ensure adequate ventilation.

Ventilation: General mechanical ventilation or local exhaust should be utilized to keep vapor concentrations below exposure limits (PEL & TLV). Ventilation equipment must be explosion proof.

Safe Work Practices: Eye washes and safety showers in the workplace are recommended. Avoid contact with skin and eyes. Avoid breathing vapors. Wash hands thoroughly after using and before eating, drinking or smoking. Employee education and training in the safe use and handling of this product is required under the OSHA Hazard Communication Standard 29CFR1200. Smoking in area where this material is used should be strictly prohibited. Always use protective clothing and equipment. Remove all contaminated clothing and wash thoroughly when finished working. Keep food and drink away from material and from area where material is being used.

Spraying of material can cause and oxygen dificient environment. Use proper ventilation to remove vapors, mist and fumes combined with NIOSH approved respirator.

Respiratory Protection: When working with this material use a MSHA/NIOSH approved cartridge respirator or suitable respiratory protection to keep airborne mists and vapor concentrations below the PEL & TLV limits. When using in poorly ventilated and confined spaces, use a fresh-air supplying respirator or a self-contained breathing apparatus.

Eye/Face Protection: Use safety glasses with chemical splash goggles or faceshield.

Skin Protection: Use chemical resistant gloves.

Body Protection: Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. **Contaminated Gear:** Take off contaminated clothing immediately and have them washed by a industrial laundry service before reuse. Contaminated clothing must not be allowed out of the workplace.

Section 9 - Physical & Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

Appearance Clear	Physical State Liquid
Odor Organic solvent	Odor threshold: No data available
pH: No data available	Melting point: No data available
Freezing point: No data available	Boiling range: 98°C
Flash point: 77 F,25 C	Evaporation rate: No data available
Flammability: Not applicable to liquids	Explosive Limits: 1% - 11%
Vapor Pressure: 9.4 mmHg	Vapor Density: 3.4
Density (Lb / Gal) 8.34	Solubility: No data available
Partition coefficient (n- No data available octanol/water):	Autoignition temperature: 280°C
Decomposition temperature: No data available	Viscosity: No data available
Regulatory Coating VOC g/L 435	Regulatory Coating VOC 3.63 Ib/gal
Actual Coating VOC g/L 422	Actual Coating VOC lb/Gal 3.52
Weight Percent Volatile 46.20	Specific Gravity (SG) 1.000
% Weight VOC 42.20	% Weight Water 0.0
% Wt Exempt VOC 4.00	% Vol Exempt VOC 3.00

Section 10 - Stability and Reactivity

Reactivity: No data available

Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Vapors may form explosive mixture with air. Hazardous polymerization may occur.

Conditions to avoid: Heat, flame and sparks. Extreme temperature and direct sunlight. Precautions should be taken to avoid exposure to atmospheric humidity or water. Evolution of CO2 in closed containers causes overpressure and produces a risk of bursting.

Incompatibile with:

Strong acids, strong bases, strong oxidizing agents, amines Will react slowly with water and moisture in the air.

Hazardous products produced under decomposition:

Carbon Monoxide, Carbon Dioxide

Section 11 - Toxicological Information

Mixture Toxicity

Oral Toxicity: 3,426mg/kg

Inhalation Toxicity: 10mg/L

Component Toxicity

omponent toxicity	
110-43-0	Methyl n-Amyl Ketone
	Oral: 1,600 mg/kg (Rat) Inhalation: 17 mg/L (Rat)
64742-95-6	Aromatic petroleum distillates
	Dermal: 2,000 mg/kg (Rabbit)
123-86-4	n-Butyl Acetate
	Inhalation: 29 mg/L (Rat)
98-56-6	Chlorobenzotrifluoride
	Oral: 13 g/kg (Rat) Dermal: 3 g/kg (Rabbit) Inhalation: 33 mg/L (Rat)

This mixture has not been tested for toxicological effects.

Acute Effects:

INHALATION - Dizziness, breathing difficulty, headaches, & loss of coordination.
 EYE CONTACT - Moderate irritation, tearing, redness, and blurred vision.
 SKIN CONTACT - Moderate irritant. Can dry and defat skin causing cracks, irritation, and dermatitis.
 INGESTION - Can cause gastrointestinal irritation, vomiting, nausea, & diarrhea.

Chronic Effects:

May affect liver, kidney and central nervous system with repeated exposure . Prolonged or repeated exposure may cause lung injury.

Contains isocyanates which can cause skin and respiratory sensitization and allergic reaction.

Routes of Entry

Inhalation	Skin Contact	Eye	Contact	Ingestion		
Target Organs						
Blood Eyes	Kidneys	Liver	Lungs	Central Nervous System	Skin	Peripheral
Nervous System	Respiratory	System	Other			

Effects of Overexposure

Short Term Exposure	The substance irritates the eyes, skin, and respiratory tract. High exposures, above the occupational exposure levels, can cause weakness, headache, and drowsiness and may cause unconsciousness. Causes local irritation to skin, eyes and mucous membranes. May cause irritation by any route of exposure. The LD50 rat is 13 gm/kg (13,000 mg/kg) (insignificantly toxic). Methyl n-amyl ketone can affect you when breathed in and by passing through your skin. Irritates the eyes and the respiratory tract. May affect the central nervous system. Breathing the vapor can cause dizziness and lightheadedness, and can make you pass out.
Long Term Exposure	n-Butyl acetate may cause skin allergy. n-Butyl acetate has been shown to damage the developing fetus in animals. Prolonged and repeated exposure to butyl acetates can cause defatting, drying and cracking of the skin. Although many solvents and petroleum based products cause lung, brain and nerve damage, these chemicals have not been adequately evaluated to determine these effects. There is evidence that this chemical is a mutagen. Causes skin irritation with cracking and drying; destroys the skin's natural oils. May cause liver and kidney damage. May affect the nervous system.

The following chemicals comprise of at least 0.1% of this mixture and are listed and/or classified as carcinogens or potential carcinogens by the NTP, IARC, OSHA (mandatory listing) or ACGIH (optional listing).

CAS Number	Description	<u>% Weight</u>	Carcinogen Rating
None			No Data Available
Section 12 - Ecol	ogical Information		
Persistence and degradability: No data available			
Bioaccumulative potent	ial: No data available		

Mobility in soil: No data available

Other adverse effects: Contains photochemically reactive solvent.

This material has not been tested for ecological effects.

Component Ecotoxicity Methyl n-Amyl Ketone	96 Hr LC50 Pimephales promelas: 126 - 137 mg/L [flow-through]
Aromatic petroleum distillates	96 Hr LC50 Oncorhynchus mykiss: 9.22 mg/L 48 Hr EC50 Daphnia magna: 6.14 mg/L
n-Butyl Acetate	96 Hr LC50 Lepomis macrochirus: 100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 17 - 19 mg/L [flow-through] 72 Hr EC50 Desmodesmus subspicatus: 674.7 mg/L
Chlorobenzotrifluoride	48 Hr EC50 Daphnia magna: 3.68 mg/L

Section 13 - Disposal Considerations

Product should be disposed of in accordance with all Federal, State and local regulations. Contact a licensed professional waste disposal service to dispose of this material. Subject to hazardous waste generation, treatment, storage and disposal rules under RCRA, 40CFR261.

Section 14 - Transportation Information

The following transportation information is provided based on Transtar Autobody Technologies interpretation of shipping regulations. Each shipper is responsible for identifying, naming, marking and labeling prior to offering for transport.

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class	
IATA	PAINT RELATED MATERIALS	UN1263	III	3	
IMGD	PAINT RELATED MATERIALS	UN1263	III	3	
USDOT	PAINT RELATED MATERIALS	UN1263	III	3	
	For inner containers not exceeding 5 liters packaged in a strong outer container and under 66 pounds: Limited Quantity				

Section 15 - Regulatory Information

The information listed in this section is not all inclusive of all regulations for this product or the chemical components of this product.

Australia-AICS: The following chemicals are listed: 98-56-6 Chlorobenzotrifluoride 1 to 5 % 123-86-4 n-Butyl Acetate 1 to 5 % 64742-95-6 Aromatic petroleum distillates 5 to 10 % 53880-05-0 Homopolymer of IPDI 10 to 20 % 110-43-0 Methyl n-Amyl Ketone 20 to 30 % 28182-81-2 Homopolymer of HDI 30 to 40 %

China-SEPA (IECSC): The following chemicals are listed :

98-56-6 Chlorobenzotrifluoride 1 to 5 %
123-86-4 n-Butyl Acetate 1 to 5 %
64742-95-6 Aromatic petroleum distillates 5 to 10 %
53880-05-0 Homopolymer of IPDI 10 to 20 %
110-43-0 Methyl n-Amyl Ketone 20 to 30 %
28182-81-2 Homopolymer of HDI 30 to 40 %

DSL Status: The following chemicals are listed on the DSL Inventory.

98-56-6 Chlorobenzotrifluoride 1 to 5 % 123-86-4 n-Butyl Acetate 1 to 5 % 64742-95-6 Aromatic petroleum distillates 5 to 10 % 53880-05-0 Homopolymer of IPDI 10 to 20 % 110-43-0 Methyl n-Amyl Ketone 20 to 30 % 28182-81-2 Homopolymer of HDI 30 to 40 %

HAPS: This formulation contains the following HAPS: - None

- NONE

NDSL Status

- None

NJ RTK: The following chemicals are listed under New Jersey RTK 123-86-4 n-Butyl Acetate 1 to 5 % 110-43-0 Methyl n-Amyl Ketone 20 to 30 %

California Proposition 65

WARNING: This product can expose you to chemicals including

- None

, which is[are] known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Proposition 65

WARNING: This product can expose you to chemicals including

- None

which is[are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

PA RTK: The following chemicals are listed under Pennsylvania RTK: 123-86-4 n-Butyl Acetate 1 to 5 %

110-43-0 Methyl n-Amyl Ketone 20 to 30 %

- **SARA 312:** This Product contains the following chemcials subject to the reporting requirements of SARA 312: 64742-95-6 Aromatic petroleum distillates 5 to 10 %
- **SARA 313:** This Product contains the following chemcials subject to the reporting requirements of SARA 313: 64742-95-6 Aromatic petroleum distillates 5 to 10 %

The following are not listed under TSCA:

- None

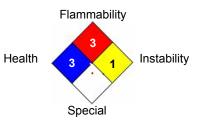
Section 16 - Other Information

Note: HMIS Ratings involve data and interpretings that can vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Hazardous Material Information System (HMIS)



National Fire Protection Association (NFPA)



Date Prepared: 5/24/2018

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Transtar Autobody Technologies to be accurate. As with all chemicals, **KEEP AWAY FROM CHILDREN AND ANIMALS. FOR PROFESSIONAL AND INDUSTRIAL USE ONLY.** The hazard information contained herein is offered solely for the consideration of the user, subject to his own investigation and verification of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.