

MATERIAL SAFETY DATA SHEET

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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: TF SPOT & PANEL HARDENER (FAST)

Product Code(s): 5901-04,-06,-07

Manufacturer/Supplier: TRANSTAR AUTOBODY TECHNOLOGIES
2040 Heiserman Dr.
Brighton, MI, 48114, USA

24 Hour Emergency Phone(s): 800-424-9300 (CHEMTREC), 613-996-6666 (CANUTEC)

Business Phone: 810-220-3000

Product Use: Hardener/Activator

MSDS Prepared By: Transtar Autobody Technologies

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% by Weight
n-Butyl Acetate	123-86-4	40- 65%
Homopolymer of HDI	28182-81-2	25- 40%
Polyisocyanate Adduct Based on IPDI	NON-HAZ	15- 25%
Aromatic Petroleum Distillate	64742-95-6	5 - 10%
Isophorone Diisocyanate (IPDI)	4098-71-9	0 - 5%

See Section 15. Regulatory Information for code descriptions
Weight percent (%) of 0.0 means chemical is in trace amounts.

3. HAZARDS IDENTIFICATION

WARNING! FLAMMABLE. IRRITANT.

HMIS Hazard Ratings: Health =2*, Flammability =3, Chemical Reactivity =1

Note: HMIS ratings involve data and interpretations that may 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. Previous overexposure or sensitization to isocyanates can be intensified through skin contact or inhalation. Asthma and other respiratory disorders (bronchitis, emphysema, hyperactivity), skin allergies, eczema, can be triggered through isocyanate exposure.

Potential Health Effects

Eyes: Moderate irritation to the eyes.

Skin: Moderate irritation to the skin. Sensitizer, can cause allergic reaction. May be absorbed through the skin causing liver, kidney, central nervous system damage. In those who have developed skin sensitization,

these symptoms can develop as a result of contact with very small amount of the material.

Inhalation: Moderate irritation to the respiratory system. Sensitizer, can cause allergic reaction. May be harmful if inhaled. High concentrations may be fatal.

Ingestion: Moderate irritation to the digestive tract. Sensitizer, can cause allergic reaction.

4. FIRST AID MEASURES

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

Eyes Contact: Flush eyes with clean water for a minimum of 15 minutes. Seek medical attention.

Skin Contact: Wash exposed area thoroughly with soap and water.

Inhalation: Remove person from area to fresh air. If breathing difficulty persists, seek medical attention.

Ingestion: DO NOT INDUCE VOMITTING. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: 80 Deg F, 27 Deg C Method: TCC

Upper Explosive Limit (UEL): 10.6

Lower Explosive Limit (LEL): 0.7

Autoignition Temperature: No data

Extinguishing Media: Alcohol Foam, CO₂, Dry Chemical, --DO NOT USE WATER--

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

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

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 of amines and cyanides. Reacts with water to give off heat.

6. ACCIDENTAL RELEASE MEASURES

For large spills or transportation accidents involving release of this product, contact the Emergency Response Center: 800-424-9300.

Eliminate all sources of ignition, provide adequate ventilation, dike spill area and add absorbent earth or sawdust to spilled liquid. Sweep up and dispose of in appropriate containers in accordance with Federal, State and/or Local regulations. Do not allow material to enter public sewers or water systems. Dike spill before cleaning up.

7. HANDLING AND STORAGE

Water sensitive material. Will react with water emitting heat and slowly solidifying. Use non-sparking tools and explosion proof equipment when handling this material. Avoid hot surfaces. Use in cool, well-ventilated areas. Keep containers closed when not in use. Keep away from excessive heat and open flames. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Store in a cool area away from heat and flames. Do not reuse container when empty.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name/Exposure Limits	CAS Number
n-Butyl Acetate	123-86-4
OSHA PEL: 150, ACGIH TLV: 150, OTHER: STEL200ppm	
Homopolymer of HDI	28182-81-2
OSHA PEL: NOT EST., ACGIH TLV: NOT EST., OTHER: 1mg/m3	
Polyisocyanate Adduct Based on IPDI	NON-HAZ
OSHA PEL: NOT EST., ACGIH TLV: NOT EST.	
Aromatic Petroleum Distillate	64742-95-6
OSHA PEL: NA, ACGIH TLV: NA, OTHER: NA	
Isophorone Diisocyanate (IPDI)	4098-71-9
ACGIH TLV: 0.005 ppm	
NIOSH REL: 0.005ppm TWA, 0.02ppm ST Skin	

Engineering Controls: Engineering controls should be utilized to control airborne contaminants below exposure limits (PEL & TLV). Ventilation equipment must be explosion proof. Use exhaust if general ventilation is not sufficient to keep the airborne contaminant levels low.

Respiratory Protection: When spraying this material utilize engineering controls such as vents and fans, to reduce emission levels below the time weighted exposure limits (ACGIH TLV & OSHA PEL) or use a fresh-air supplying respirator or a self-contained breathing apparatus (SCBA). 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

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apparatus.

Eye Protection: Use safety glasses with chemical splash goggles or faceshield. Use sealed face protection, i.e., a full face respirator when spraying.

Skin Protection: Use chemical resistant gloves. When spraying use supplied air and a full body chemical protective suit with gloves to minimize skin contact.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Homogeneous mixture
Physical State: Liquid
Color: Clear, colorless to slight yellow.
Odor: Fruity, acetate
Odor Threshold: No Data
Specific Gravity (water=1) 1.00
Vapor Pressure: No data
Vapor Density: Heavier than air
Material VOC: 4.16 lb/gl 499 g/l
Coating VOC: 4.16 lb/gl 499 g/l
Evaporation Rate: Slower than Butyl Acetate
Boiling Point: 255 deg F
Melting Point: No data
Freezing Point: No data
Viscosity at Ambient Temperature: No data
Solubility in Water: Insoluble
Octanol/Water Partition Coefficient: No data
pH: No data

10. STABILITY AND REACTIVITY

Stability: Stable

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

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Effects of Exposure:

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CONTAINS ISOCYANATES WHICH CAN CAUSE SKIN AND RESPIRATORY SENSITIZATION.

ACUTE:

INHALATION - Dizziness, breathing difficulty, headaches, & loss of coordination. Over-exposure can result in lung damage and respiratory sensitization.

EYE CONTACT - Irritation, tearing, redness, and blurred vision.

SKIN CONTACT - Can dry and defat skin causing cracks, irritation, and dermatitis. Isocyanates can cause skin sensitization from contact

INGESTION - Can cause gastrointestinal irritation, vomiting, nausea, & diarrhea.

CHRONIC:

May affect liver, kidney and central nervous system with repeated exposure. Sensitization to isocyanates can reoccur with future exposures.

Spraying of material can cause an oxygen deficient environment. Use proper ventilation to remove vapors, mists and fumes or use proper respiratory protection as SCBA or supplied air.

Acute Toxicity Data: No data.

Carcinogenicity: NTP -No, IARC -No, OSHA -No

This product has not been tested for carcinogenic effects. Some chemicals in this product may be identified by NTP, IARC and/or OSHA as carcinogenic, indicated above as "Yes". No further information available.

Teratology: No data.

Reproduction: No data.

Mutagenicity: No data.

12. ECOLOGICAL INFORMATION

No data.

13. DISPOSAL CONSIDERATIONS

Subject to hazardous waste generation, treatment, storage and disposal under RCRA, 40CFR261. Product should be disposed of in accordance with all Federal, State and local regulations.

14. TRANSPORT 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.

USA (DOT) Status: UN1263, Paint related material, 3, PG III

For inner packagings not exceeding 5 L each packaged

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in a strong outer box: CONSUMER COMMODITY ORM-D

Water (IMDG) Status: UN1263, Paint related material, 3, PG III

Air (ICAO,IATA) Status: UN1263, Paint related material, 3, PG III

Canada (TDG) Status: UN1263, Paint related material, 3, PG III

For inner packagings not exceeding 5 L each

packaged in a strong outer box: CONSUMER COMMODITY ORM-D

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.

US Federal Regulations

TSCA Status: All known major components of this product are listed on the TSCA Inventory and/or are otherwise in compliance with TSCA.

SARA 302 (EHS) Status: No EHS chemicals present.

SARA 311/312 Status: Immediate Health Hazard, Delayed Health Hazard, Fire Hazard.

SARA 313 Status: *** No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present. ***

OSHA Status: This material meets the requirement of hazardous material and is subject to 29CFR1910.1200.

USA State Information

California Proposition 65: WARNING: This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

Pennsylvania RtK Status: This material contains chemical(s) subject to notification under Pennsylvania Right to Know.

New Jersey RtK Status: This material contains chemical(s) subject to notification under New Jersey Right to Know.

Massachusetts RtK Status: This material contains chemical(s) subject to notification under Massachusetts Right to Know.

Rhode Island RtK Status: This material contains chemical(s) subject to notification under Rhode Island Right to Know.

International Regulations

Canada

DSL Status: All known major components of this product are listed on the DSL Inventory and/or are otherwise in compliance with the DSL

NDSL Status: Contains no chemicals on the NDSL

WHMIS: B2 D1A D2A D2B

EINECS Status: All components of this material are listed on the EINECS Inventory.

16. OTHER INFORMATION

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 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.
