

MATERIAL SAFETY DATA SHEET

Revision 1
Prepared 2012-06-14

Section 1 - Product and Company Identification

Product Name: Quick Dry Rubberized Undercoat

Product Code: 4361-F, 4364-F, 4365-F

TradeName(s):

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

24 Hour Emergency Phone(s):
USA 800-424-9300 (CHEMTREC)
International 001-703-527-3887 (CHEMTREC Int'l)

Business Phone: 810-220-3000
MSDS Prepared By: Transtar Autobody Technologies

Product Use: Undercoating

Section 2 - Composition

<u>Chemical Name / CAS No</u>	<u>OSHA Exposure Limits</u>	<u>ACGIH Exposure Limits</u>	<u>Other Exposure Limits</u>
Acetone 67-64-1 20 to 30% Vapor Pressure: 186	1,000 ppm (2,400 mg/m3) TWA	500 ppm (1,188 mg/m3) TWA and a STEL of 750 ppm (1,782 mg/m3).	
n-Hexane 110-54-3 10 to 20% Vapor Pressure: 160 20 Deg C	The OSHA PEL is 500 ppm (1,800 mg/m3) TWA.	The recommended NIOSH REL, the ACGIH has proposed a TWA of 50 ppm (180 mg/m3). They have also set an 8-hour TWA of 500 ppm (1,800 mg/m3) for all isomers except the normal isomer and an STEL of 1,000 ppm (3,600 mg/m3) for these other isomers, as has ACGIH.	The NIOSH recommendation for other hexane isomers is 100 ppm TWA and STEL of 510 ppm. The NIOSH IDLH level is 1,100 ppm (10% LEL).
Calcium Carbonate 1317-65-3 5 to 10% Vapor Pressure: 0	OSHA has set a TWA of 15 mg/m3 on a total dust basis and 5 mg/m3 on a respirable fraction basis.	ACGIH has set a TWA of 10 mg/m3 (for dust containing no asbestos and <1% free silica).	
Alkyd copolymer 5 to 10% Vapor Pressure: 0			
Modified pentaerythritol ester of rosin 1 to 5% Vapor Pressure: 0			
Light Aliphatic Solvent Naphtha (Petroleum) 64742-89-8 1 to 5% Vapor Pressure: 5.3	PEL =300pm	PEL=300 PPM	
Organically modified bentonite clay, Nonhazardous 1 to 5%			
Toluene	TWA = 200 ppm and a	TWA of 50 ppm.	

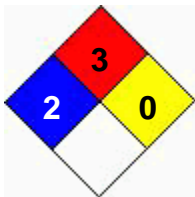
108-88-3
1 to 5%
Vapor Pressure: 22 mm Hg

ceiling level of 300 ppm
not to be exceeded at any
time and a 500 ppm as a
10-minute maximum peak.

Carbon Black 1333-86-4 1 to 5% Vapor Pressure: 1 mmHg	The OSHA TWA is 3.5 mg/m3.	The ACGIH TWA 3.5 mg/m3.	
Styrene-butadiene block copolymer, Nonhazardous 1 to 5% Vapor Pressure: 0			
Xylene 1330-20-7 1 to 5% Vapor Pressure: 8 mm Hg	PEL-TWA - 100 ppm (435 mg/m3) for all isomers.	PEL-TWA = 100 ppm (435 mg/m3) for all isomers. STEL= 150 ppm (655 mg/m3).	
Heptane, all isomers 1 to 5%			
Silica, Amorphous 7631-86-9 1 to 5% Vapor Pressure: 0	OSHA has set a TWA of 20 mppcf or (80 mg/m3/% SiO2).	The ACGIH has set a TWA of 10 mg/m3 as inhalable particulate and 3 mg/m3 as respirable particulates.	The NIOSH 10-hour TWA is 6 mg/m3.
Methyl Alcohol 67-56-1 1 to 5% Vapor Pressure: 127	PEL-TWA value is 200 ppm (260 mg/m3) and ACGIH set a STEL of 250 ppm (325 mg/m3).	PEL-TWA value is 200 ppm (260 mg/m3) and ACGIH set a STEL of 250 ppm (325 mg/m3).	
Ethylbenzene 100-41-4 0.1 to 1.0% Vapor Pressure: 8 mm Hg	PEL-TWA = 100 ppm (435 mg/m3) for all isomers.	PEL-TWA = 100 ppm (435 mg/m3) for all isomers. STEL= 150 ppm (655 mg/m3).	

Section 3 - Hazards Identification

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.



HMIS Rating: 2 - 3 - 0

Routes of Entry

Inhalation

Skin Contact

Eye Contact

Ingestion

Target Organs

Blood Eyes

Kidneys

Liver

Lungs

Nervous System

Skin

Other

ACUTE:

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.

Effects of Overexposure, Quick Dry Rubberized Undercoat:

Short Term Exposure

Contact can irritate the skin. Exposure can irritate the eyes and respiratory tract. Exposure to high concentrations can cause dizziness, lightheadedness, and unconsciousness. Irritates the eyes, nose, and respiratory tract. Exposure can cause lightheadedness, giddiness, headaches, and nausea. High levels can

Effects of Overexposure, Quick Dry Rubberized Undercoat:

lead to unconsciousness and death. Inhalation: Exposure to levels above 500 ppm may cause headaches, abdominal cramps, a burning feeling of the face, numbness and weakness of the fingers and toes. Levels above 1,300 ppm may cause the above plus nausea and irritation of the nose and throat. Levels above 1,500 ppm may cause the above plus blurred vision, loss of appetite and loss of weight. Most symptoms disappear within a few months if exposure ceases. Breathing liquid into the lungs may cause a chemical pneumonia. Skin: Contact may cause irritation, redness, swelling, blisters and pain. Skin exposure may contribute to symptoms listed under inhalation. Eyes: Levels over 880 ppm may cause irritation. Ingestion: May contribute to symptoms listed under inhalation. Estimated lethal dose is one ounce to one pint. Irritates the eyes and respiratory tract. Causes central nervous system depression. High levels of exposure may cause fatigue, weakness, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); nervousness, muscle fatigue, insomnia; paresthesia; cardiac dysrhythmia, unconsciousness and death may occur. Inhalation: 100 ppm exposure can cause dizziness, drowsiness and hallucinations. 100 - 200 ppm can cause depression, 200 - 500 ppm can cause headaches, nausea, loss of appetite, loss of energy, loss of coordination and coma. In addition to the above, death has resulted from exposure to 10,000 ppm for an unknown time. Skin: Can cause dryness and irritation. Absorption may cause or increase the severity of symptoms listed above. Eyes: Can cause irritation at 300 ppm. Ingestion: Can cause a burning sensation in the mouth and stomach, upper abdominal pain, cough, hoarseness, headache, nausea, loss of appetite, loss of energy, loss of coordination and coma. Inhalation may cause irritation to respiratory tract. Skin contact may cause irritation. Eye contact may cause irritation. Amorphous fused silica can affect you when breathed in. Exposure can cause a very serious lung disease called silicosis, with cough and shortness of breath. Very high exposures can cause this problem to develop in a few weeks, or with lower exposures it may occur over many years. Silicosis can cause death. If silicosis develops, chances of getting tuberculosis are increased. The disease may progress, with or without continued exposure. If it does, this can be crippling or even fatal. Irritates the eyes, skin, and respiratory tract. Inhalation: Exposure to vapor can be irritation to the nose and throat. Inhalation of vapor at concentrations above 200 ppm or 3 - 5 minutes can lead to xylene intoxication. Symptoms include headache, dizziness, nausea and vomiting. If exposure should continue, central nervous system depression characterized by shallow breathing and weak pulse can occur. Levels of 230 ppm for 15 minutes may cause lightheadedness without loss of equilibrium. Reversible liver and kidney damage in man has followed exposure to sudden high concentrations of vapor. Such high levels may also give rise to lung congestion. Exposure to extremely high concentrations (10,000 ppm or more) of xylene vapors can lead to a strong narcotic effect with symptoms of slurred speech, stupor fatigue, confusion, unconsciousness, coma, and possible death. Ethyl benzene irritates the eyes, skin, and respiratory tract. Exposure to high concentrations can cause dizziness, lightheadedness and unconsciousness. Very high exposures (above the OEL) can cause difficult breathing, narcosis, coma, and even death. Swallowing the liquid may cause aspiration into the lungs, resulting in chemical pneumonitis. May affect the central nervous system. Concentration of 200 ppm can cause irritation.

Long Term Exposure

Repeated skin exposure can cause dryness and skin cracking. This chemical has not been adequately evaluated to determine whether brain or nerve damage could occur with repeated exposure. However, many solvents and other petroleum-based chemicals have been shown to cause such damage. Effects may include reduced memory and concentration, personality changes (withdrawal, irritability), and fatigue, sleep disturbances, reduced coordination, and/or effects on the nerves to the arms and legs (weakness, "pins and needles"). High or repeated exposure can damage the nervous system, causing numbness, tingling, and/or muscle weakness in the hands, feet, arms and legs. Repeated skin contact can cause irritation, dryness and cracking and can lead to rash. May cause symptoms listed under inhalation. Exposure to levels above 650 ppm for two to four months can result in weakness and numbness of the arms and legs. Symptoms go away within a few months if exposure stops. Use by older children in the US and Europe who have "sniffed" household chemicals containing n-hexane in an attempt to get "high" has caused paralysis of the arms and legs. In laboratory studies, animals exposed to high levels of n-hexane had signs of nerve damage, lung damage and damage to the sperm-forming cells. Repeated or prolonged contact with skin may cause dermatitis; drying, cracking, itching, and skin rash. May cause liver, kidney, and brain damage; decreased learning ability, psychological disorders. Levels below 200 ppm may produce headache, tiredness and nausea. From 200 - 750 ppm symptoms may include insomnia, irritability, dizziness, some loss of memory, cause heart palpitations and loss of coordination. Blood effects and anemia have been reported but are probably due to contamination by benzene. Exposure to levels well above 3.5 mg/m³ for several months may result in damage to the skin and nails, temporary or permanent damage to the lungs and breathing passages, and adversely affect the heart. Carbon Black containing PAH greater than 0.1% should be considered a suspect carcinogen. Lungs may be affected by repeated or prolonged exposure at very high concentrations: Some Carbon blacks may contain compounds which are carcinogenic and as organic extracts of these have been classified as possibly carcinogenic to humans, special care should be taken to avoid exposure to such extracts. Lung effects remain controversial and may be due to contaminants. It is probable that minor effects reported are non-specific effects associated with exposure to nuisance dusts in general. Polyaromatic hydrocarbons (PAH) are reportedly present in some carbon blacks. Depending on the process of manufacture, there are variations in their chemical compositions. Exposure to low levels may cause many of the symptoms listed above. Skin contact causes dryness and cracking. May cause liver damage. Because methyl alcohol is slowly eliminated from body, repeated low exposures may build-up to high levels causing severe symptoms. Recovery is not always complete. Methanol has been found to be a teratogen (changes in the genetic material) in animals. Whether it does in humans is unknown. Inhalation of xylene vapor and skin contact with liquid are the two most probable routes of long term exposure. Symptoms of inhalation are dizziness, headache and nausea. Long term exposure has been associated with liver and kidney damage, intestinal tract disturbances and central nervous system depression. Prolonged contact with skin can lead to irritation, dryness and cracking. Repeated exposure can cause poor memory, difficulty in concentration, and other brain effects. It can also cause damage to the eye surface. Repeated or prolonged exposure to the skin may cause drying, scaling and blistering. May cause kidney disease, liver disease, chronic respiratory disease, skin disease, as follows: EB is not nephrotoxic. Concern is expressed because the kidney is the primary route of excretion of EB and its metabolites. EB is not hepatotoxic. Since EB is

Effects of Overexposure, Quick Dry Rubberized Undercoat:

metabolized by the liver, concern is expressed for these tissues. Exacerbation of pulmonary pathology might occur following exposure to EB. Individuals with impaired pulmonary function might be at risk. EB is a defating agent and may cause dermatitis following prolonged exposure. Individuals with preexisting skin problems may be more sensitive to EB. There is limited evidence that EB may damage the developing fetus, and may cause mutations.

IARC: Possible carcinogen for humans 2A.
CS listed by NTP: Substance may cause cancer.
(ACGIH)
1-2A, N-1, CP-65
IARC: Group 3 carcinogen CAS# 100-41-4:
OSHA: Possible Select carcinogen
IARC: Group 2B carcinogen

Section 4 - First Aid Measures

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

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

EYE 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.

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

Section 5 - Fire Fighting Measures

Flash Point: -20 C (-4 F)

LEL: 1.0 %

UEL: 112.8 %

Extinguishing Media: Foam, Alcohol Foam, CO₂, Dry Chemical, Water Fog, Other.

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

Accidental Release Measures: Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Eliminate all sources of ignition, provide adequate ventilation, dike spill area and add absorbment material to spilled liquid. Sweep up and dispose of in a DOT approved container. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. The container must be labeled and disposed in accordance with State, Federal, or local waste regulations by a licensed waste contractor/hauler. For large spills or transportation accidents involving release of this product, contact the National 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

Section 7 - Handling and Storage

Safe Handling Measures: 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.

Storage Requirements: Store in a cool area away from heat and flames. Do not reuse container when empty.

Section 8 - Exposure Control and PPE

Engineering Controls: 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.

Respiratory Protection: Avoid breathing of vapors, mists or spray. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half mask R95 particulate respirator, Half mask or full facepiece air-purifying respirator with N100 particulate filters, Half facepiece or fullface air-purifying respirator with P100 particulate filters, Half facepiece or fullface air-purifying respirator with P95 particulate filters, Half facepiece or fullface air-purifying respirator with N95 particulate filters.

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

Skin Protection: Use chemical resistant gloves.

Section 9 - Physical and Chemical Properties

Appearance	Black
Odor	Organic solvent
Physical State	Liquid
Vapor Density	Heavier than air
Vapor Density	2.48
Boiling Range	56 to 825 °C
Weight Percent Volatile	55.78
Specific Gravity (SG)	0.921
Regulatory Coating VOC lb/ga	3.58
Regulatory Coating VOC g/L	429
Actual Coating VOC lb/Gal	2.74
Actual Coating VOC g/L	328
Product Color	Black

Section 10 - Stability and Reactivity

Incompatible with:

- Strong oxidizers
- Acids
- Strong oxidizing agents

Hazardous products produced under decomposition:

Carbon Monoxide, Carbon Dioxide

Section 11 - Toxicological Information

This material has not been tested for toxicological effects.

Section 12 - Ecological Information

This material has not been tested for ecological effects.

Section 13 - Disposal Considerations

Subject to hazardous waste generation, treatment, storage and disposal. Product should be disposed of in accordance with all governmental regulations. 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.

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.

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>HazardClass</u>
IATA	Coating Solution	UN1139	II	3
IMDG	Coating Solution	UN1139	II	3
USDOT	Coating Solution Limited Quantity	UN1139	II	3

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.

California Proposition 65

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

- 108-88-3 Toluene 1 to 5 %
- 110-82-7 Cyclohexane 0.1 to 1.0 %
- 287-92-3 Cyclopentane 0.1 to 1.0 %

California Proposition 65

WARNING: This product contains chemical(s) known to the State of California to cause cancer.

- 1333-86-4 Carbon Black 1 to 5 %
- 100-41-4 Ethylbenzene 0.1 to 1.0 %
- 110-82-7 Cyclohexane 0.1 to 1.0 %
- 287-92-3 Cyclopentane 0.1 to 1.0 %

The following are not listed under TSCA or do not meet the reporting/listing requirements under TSCA

- Alkyd copolymer 5 - 10%
- Modified pentaerythritol ester of rosin 1.0 - 5%
- 68410-16-2 Aromatic hydrocarbon resin 1.0 - 5%
- Organically modified bentonite clay, Nonhazardous 1.0 - 5%
- Styrene-butadiene block copolymer, Nonhazardous 1.0 - 5%
- Heptane, all isomers 1.0 - 5%

The following are reportable under SARA

- 110-54-3n-Hexane 10 - 20%
- 64742-89-8 Light Aliphatic Solvent Naphtha (Petroleum) 1.0 - 5%
- 108-88-3Toluene 1.0 - 5%
- 7631-86-9 Silica, Amorphous 1.0 - 5%
- 67-56-1 Methyl Alcohol 1.0 - 5%
- 1330-20-7 Xylene 1.0 - 5%
- 100-41-4Ethylbenzene 0.1 - 1.0%

Section 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.