

MATERIAL SAFETY DATA SHEET

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PART 1. POLYPROPYLENE BUMPER

1.0 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: Bumper – Plastic Polypropylene

Company Distributor: Keystone Automotive Industries

700 East Bonita Avenue

Pomona, CA 91767

Company Phone: 1-800-772-5557

Manufactured By: The Dow Chemical Company/Autolign

24 hour Emergency Phone Number: 517-636-4400

Customer Information Center: 1-800-258-2436

Product Use: Replacement Crash Part

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	% BY WEIGHT
Diethyl toluenediamine	# 068479-98-1	29%
Zinc stearate	000557-05-1	1-5%
Polyalkylene ether polyol	009082-00-2	60-75%
Polyoxypropylene diamine	009046-10-0	3-7%

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

* Viscous liquid. Pungent odor. Causes eye irritation.

* Note: Exposures in cured form not likely.

POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

EYE: May cause slight eye irritation. May cause moderate corneal injury.

SKIN: Prolonged exposure may cause moderate skin irritation. May cause allergic



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skin reaction in susceptible individuals. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

INGESTION: Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

INHALATION: At room temperature, vapors are minimal due to low vapor pressure. Certain operations may generate vapor or aerosol concentrations sufficient to cause irritation. Such operations include those in which the material is heated or sprayed as an aerosol (venting of vessels/lines).

CHRONIC EFFECTS

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: In rats, repeated dietary ingestion of diethyltoluenediamine (DETDA) has caused pancreatic, eye, liver and thyroid effects.

CANCER INFORMATION: Diethyltoluenediamine (DETDA) has caused cancer in long-term animal studies. Increased numbers of tumors in the liver, thyroid & possibly the mammary glands were observed in rats given DETDA in their diet at exaggerated doses for 2 years.

4.0 FIRST AID MEASURES

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: Wash off in flowing water or shower.

INGESTION: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

INHALATION: Remove to fresh air if effects occur. Consult a physician.



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NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

5.0 FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: 335 F, 168 C

METHOD USED: PMCC, ASTM D93

FLAMMABILITY LIMITS

LFL: Not determined

UFL: Not determined

HAZARDOUS COMBUSTION PRODUCTS: Combustion may produce carbon dioxide and carbon monoxide. Unidentified organic compounds may be formed during combustion which may present a greater hazard.

OTHER FLAMMABILITY INFORMATION: Fire water run-off may be toxic.

EXTINGUISHING MEDIA: Water fog, carbon dioxide, dry chemical, and foam.

For large scale fires, alcohol resistant foams are preferred if available. General purpose synthetic foams or protein foams may function, but much less effectively. Water may be used to flush spills away from fire exposures and to dilute spills to non-flammable mixtures. If possible, contain fire water run-off. For large scale fires, direct water stream may cause violent frothing, but fine water spray may help control situation.

FIRE FIGHTING INSTRUCTIONS: Keep unnecessary people away; isolate hazard area and deny unnecessary entry. When using water spray, boil-over may occur when the product temperature reaches the boiling point of water (tank-type scenarios, not spills).



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PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive-pressure self-contained breathing apparatus and full protective equipment.

6.0 ACCIDENTAL RELEASE MEASURES

PROTECT PEOPLE: Isolate and confine spill area. Spills may be a slipping hazard. **PROTECT THE ENVIRONMENT:** Keep out of sewers, storm drains, surface waters and soil. Material is more dense than water and has limited water solubility surface. It will collect on the lowest surface.

CLEANUP: Spills should be collected to prevent contamination of waterways

7.0 HANDLING AND STORAGE

HANDLING: Exercise reasonable care and cleanliness. Spills of these organic liquids on hot fibrous insulations may lead to lowering of the autoignition temperature possibly resulting in spontaneous combustion. Advisable to agitate prior to use.

The reaction of polyols and isocyanates generate heat. Contact of the reacting materials with skin or eyes can cause severe burns and may be difficult to remove from the affected areas. Immediately wash affected areas with plenty water and seek medical assistance.

STORAGE: Store in sealed containers. Protect from atmospheric moisture. Replace outage with dry, inert atmosphere.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guide lines.



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PERSONAL PROTECTIVE EQUIPMENT EYE/FACE PROTECTION: Use chemical goggles.

SKIN PROTECTION: Use gloves impervious to this material when prolonged or frequently repeated contact could occur.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. If respiratory irritation is experienced, use an approved airpurifying respirator.

EXPOSURE GUIDELINE(S): Diethyltoluenediamine (DETDA): Dow IHG is 0.02 ppm, Skin.

Although some of the additives used in this product may have exposure guidelines, these additives are complexed with other components in the product and no exposure would be expected under normal handling conditions. A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous liquid
Odor:	Pungent odor
VAP Press:	Nil
VAP Density:	>1
Boiling Point:	Not applicable
Solubility in Water:	Partially soluble
Specific Gravity:	1.0311 25/25C



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10.0 STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal handling and storage conditions.

CONDITIONS TO AVOID: None known

INCOMPATIBILITY WITH OTHER MATERIALS: Strong acids and oxidizing materials. Also, alkali or alkaline earth metals such as copper, zinc or brass.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may produce carbon dioxide and toxic carbon monoxide. Unidentified organic compounds may be formed during combustion.

HAZARDOUS POLYMERIZATION: Will not occur.

11.0 TOXICOLOGICAL INFORMATION

(See Section 3 for Potential Health Effects. For detailed toxicological data write or call the address or non-emergency number shown in Section 1)

Acute

INGESTION: The oral LD50 for rats is between 1000-2000 mg/kg.

SKIN ABSORPTION: The LD5O for skin absorption in rabbits is >2000 mg/kg.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): For diethyltoluenediamine, in vitro mutagenicity studies were negative in some cases and positive in other cases. Animal mutagenicity studies were negative.

12.0 ECOLOGICAL INFORMATION

(For detailed Ecological data, write or call the address or non-emergency number shown in Section 1)

ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING: No bioconcentration is expected because of the high molecular weight (MW>1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and



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remain in the sediment.

DEGRADATION & PERSISTENCE: This water insoluble polymeric solid is expected to be inert in the environment. Surface photo degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

ECOTOXICITY: Not expected to be acutely toxic, but pellets may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

13.0 DISPOSAL CONSIDERATIONS

DISPOSAL: Any disposal practice must be in compliance with all federal, state/provincial, and local laws and regulations. State/provincial and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Regulations may also vary in different locations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. None of these waste management options should be considered "arranging for disposal".

Product as sold is not a RCRA hazardous waste when disposed.

Do not allow into any sewers, on the ground, or into any body of water.

Refer to 40 CFR Section 261, and/or any other appropriate federal, state, provincial, or local requirements for proper classification information. For additional information see MSDS Regulatory Information (Section 15).



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THE KEYSTONE AUTOMOTIVE INDUSTRIES HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/Information On Ingredients)

FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device, or landfill.

14.0 TRANSPORT INFORMATION

DOT CLASSIFICATION/DESCRIPTION: For DOT regulatory information, if required, transportation regulations, product shipping consult papers, or your Dow representative.

CANADIAN TDG INFORMATION: For TDG regulatory information, if required, consult transportation regulations, product shipping papers, or your Dow representative.

15.0 REGULATORY INFORMATION

(Not meant to be all-inclusive--selected regulations represented)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal,



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state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. REGULATIONS

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME CAS NUMBER CONCENTRATION

ZINC COMPOUNDS 1 -5 %

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) is considered, under applicable definitions, to meet the following categories: An immediate health hazard

A delayed health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

PAI=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%).

PA3=Pennsylvania Environmental Hazardous Substance (present at greater than or equal to 1 .0%).



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OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

D2B - eye or skin irritant. Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's workplace education program.

CPR STATEMENT: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

HAZARDOUS PRODUCTS ACT INFORMATION: This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14):

COMPONENTS:	CAS#	AMOUNT
		(%w/w)
Polyalkylene ether polyol	CAS # 9082-00-2	60-75%
Polyoxypropylene diamine	CAS# 9046-10-0	3-7%
Zinc Stearate	CAS# 557-05-1	1-5%

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16.0 OTHER INFORMATION

None





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PART 2. PRIMER

1.0 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: Primer

Company Distributor: Keystone Automotive Industries

700 East Bonita Avenue

Pomona, CA 91767

Company Phone: 1-800-772-5557

Manufactured By: Transtar Autobody Technologies/Autolign

Emergency Phone: 1-800-424-9300 Chemtrec

Product Use: Replacement Crash Part

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	% BY WEIGHT
Acrylic Polymer	Non Hazard	15 – 25 %
Talc	14807-96-6	15 – 25 %
Barium Sulfate	7727-43-7	15 – 25 %
Acrylic Monomer	97-88-1	Trace

See Section 15, Regulatory Information for code descriptions.

Weight percent (%) of 0.0 means chemical is in trace amounts.

3.0 HAZARDS IDENTIFICATION

This product is nonhazardous and represents no hazards to health or the environment when used as directed.

HMIS Hazard Ratings: Health = 1, Flammability =0, Chemical Reactivity =0



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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.

Potential Health Effects

Eyes: Dust from sanding can be irritating to the eyes.

Skin: None to minimal hazard to the skin

Inhalation: Dust from sanding may contain respirable size particles which can be

irritating or damaging to the respiratory tract and lungs.

Ingestion: Slight irritation to the digestive tract.

4.0 FIRST AID MEASURES

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

Eye Contact: Flush eyes with clean water for a minimum of 15 minutes.

Seek medical attention if problems persist.

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 VOMITING. Seek immediate medical

attention.

5.0 FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: N/A Method: TCC

Upper Explosive Limit (UEL): N/A

Lower Explosive Limit (LEL): N/A



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Auto Ignition Temperature: No data

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

Hazardous Combustion Products: Carbon Monoxide, Carbon Dioxide, and Oxides of Nitrogen.

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards.

6.0 ACCIDENTAL RELEASE MEASURES

Sweep up and transfer to an appropriate container for disposal.

7.0 HANDLING AND STORAGE

Keep away from heat and flames.

8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

CHEMICAL NAME/EXPOSURE LIMITS	CAS NUMBER
Acrylic Polymer	Non Hazard
OSHA PEL: NA, ACGIH TLV: NA, OTHER: NA	
Talc	14807-96-6
OSHA PEL: 20 mppcf, ACGIH TLV: 2 mg/m ³	
Barium Sulfate	7727-43-7
OSHA PEL: 5 mg/m³, ACGIH TLV: 5 mg/m³, OTHER: NA	
Acrylic Monomer	97-88-1
OHSA PEL: NA, ACGIH TLV: NA, OTHER: 50 ppm	



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Engineering Controls: Use with adequate ventilation. If normal ventilation is not adequate use exhaust fan.

Respiratory Protection: Utilize engineering controls to reduce emission levels below the time weighted exposure limits (ACGIH TLV & OSHA PEL). Wear an approved respirator if exposure limits are above the exposure limits listed above.

Eye Protection: Use safety glasses.

Skin Protection: Use impermeable chemical gloves for skin protection.

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. Smoking in area where this material is used **should be strictly prohibited**. Keep food and drink away from material and from area where material is being used.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Homogeneous mixture
Physical State:	Solid
Color:	Black
Odor:	No odor present
Odor Threshold:	No data
Specific Gravity (water=1)	1.74
Vapor Pressure:	No data
Vapor Density:	N/A
Material VOC:	0.02 LB/gl 2 g/l
Coating VOC:	0.03 LB/gl 3 g/l
Evaporation Rate:	N/A



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Boiling Point:	329° 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

10.0 STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Water based product. None anticipated.

Hazardous Polymerization: WILL NOT OCCUR.

11.0 TOXICOLOGICAL INFORMATION

Effects of Exposure: No acute or chronic health effects identified or anticipated.

Acute Toxicity Data: No data.

Carcinogenicity: NTP – No, IARC – No, OSHA – No

This product has not been tested for carcinogenic effects. Some material 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

12.0 ECOLOGICAL INFORMATION

No data.



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13.0 DISPOSAL CONSIDERATIONS

This product when disposed represents a non-hazardous waste, as identified in 40CFR261. It is the responsibility of each waste generator to identify the proper classification of their waste streams.

14.0 TRANSPORT INFORMATION

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

USA (DOT) Status: Not regulated

Water (IMDG) Status: Not regulated

Air (ICAO, IATA) Status: Not regulated

Canada (TDG) Status: Not regulated

15.0 REGULATORY INFORMATION

This information listed in this section is not all inclusive of all regulation 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: No hazards to Emergency Responders identified.

SARA 313 Status: *No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40CFR372 are present.

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



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USA State Information

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

Pennsylvania, New Jersey, Massachusetts, and Rhode Island RTK

Status: This material contains chemicals subject to notification under these states 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

Canada WHMIS: N/A

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

Inventory.

16.0 OTHER INFORMATION

To the best of our knowledge, the information contained herein is accurate, obtained from sources believed by Keystone Automotive 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 your own investigation and verification of compliance with applicable regulation, including the safe use of the product under every foreseeable condition.