**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY**

**PRODUCT NAME:** NEW STRONGER-FASTER GORILLA GLUE (R*)

**PRODUCT TYPE:** POLYURETHANE ADHESIVE FOR WOOD AND WOOD SUBSTRATES

**DISTRIBUTOR:**
THE GORILLA GLUE COMPANY
4550 RED BANK EXPRESSWAY
CINCINNATI, OH 45227

**TEL:** (513) 271-3300

**FAX:** (513) 527-3742

**DATA PREPARED:** JANUARY 26, 2007

**DATA REVISED:** 1ST EDITION
EMERGENCY:

DURING BUSINESS HOURS:
THE GORILLA GLUE COMPANY: (800) 966-3458.

OUTSIDE BUSINESS HOURS:
PROSAR INTERNATIONAL POISON CENTER: (800) 420-7186.

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO.</th>
<th>% CONTENT</th>
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<tbody>
<tr>
<td>URETHANE PREPOLYMER</td>
<td>TRADE SECRET</td>
<td>40-50</td>
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<tr>
<td>POLYMERIC MDI*</td>
<td>9016-87-9</td>
<td>50-60</td>
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*POLYMERIC MDI IS A MIXTURE OF 4,4'-DIPHENYLMETHANE-DIISOCYANATE, ISOMERS AND HOMOLOGUES.

3. HAZARDS IDENTIFICATION

HARMFUL BY INHALATION. IRRITATING TO EYES, RESPIRATORY SYSTEM CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

4. FIRST AID MEASURES

INHALATION:

IF AEROSOL OR VAPOR IS INHALED IN HIGH CONCENTRATIONS:
MOVE AFFECTED INDIVIDUAL TO FRESH AIR AND KEEP HIM WARM, LET HIM REST. IF THERE IS DIFFICULTY IN BREATHING; CALL A DOCTOR.

EYE CONTACT:
FLUSH EYES FOR AT LEAST 10 MINUTES WHILE HOLDING EYELIDS OPEN. CONTACT A DOCTOR.

SKIN CONTACT:
REMOVE CONTAMINATED CLOTHES IMMEDIATELY, AND WASH SKIN WITH A CLEANSER BASED ON POLYETHYLENE GLYCOL OR WITH PLENTY OF WARM WATER AND SOAP. CONSULT A DOCTOR IN THE EVENT OF A SKIN REACTION.

INGESTION:
PRODUCT IS NOT INTENDED TO BE INGESTED OR EATEN. IF THIS PRODUCT IS INGESTED, SEVERE IRRITATION OF THE GASTROINTESTINAL TRACT MAY OCCUR, AND SHOULD BE TREATED SYMPTOMATICALLY. DO NOT INDUCE THE PATIENT TO VOMIT. CALL A DOCTOR OR AMBULANCE.

5. FIRE FIGHTING MEASURES

UPPER FLAMMABLE LIMIT (UFL): NOT DETERMINED
LOWER FLAMMABLE LIMIT (LFL): NOT DETERMINED

NFPA:
HEALTH 3
FLAMMABILITY 1
REACTIVITY 1

HMIS:
HEALTH 3
FLAMMABILITY 1
REACTIVITY 1
GENERAL FIRE HAZARDS:
DOWN-WIND PERSONNEL MUST BE EVACUATED. DO NOT RESEAL CONTAMINATED
CONTAINERS; A CHEMICAL REACTION GENERATING CARBON DIOXIDE GAS PRESSURE
MAY OCCUR RESULTING IN RUPTURE OF THE CONTAINER. DENSE SMOKE IS Emitted
WHEN PRODUCT IS BURNED WITHOUT SUFFICIENT OXYGEN. WHEN USING WATER SPRAY,
BOIL-OVER MAY OCCUR WHEN PRODUCT TEMPERATURE REACHES THE BOILING POINT
OF WATER, AND THE REACTION FORMING CARBON DIOXIDE WILL ACCELERATE. MDI VAPOR
AND OTHER GASES MAY BE GENERATED BY THERMAL DECOMPOSITION.

SPECIAL HAZARDS IN FIRE:
IN CASE OF FIRE, FORMATION OF CARBON MONOXIDE, CARBON DIOXIDE, NITROGEN
OXIDE, ISOCYANATE VAPOR, AND TRACES OF HYDROGEN CYANIDE IS POSSIBLE.

EXTINGUISHING MEDIA:
CARBON DIOXIDE, DRY POWDER, AND FOAM. IN CASES OF LARGE SCALE FIRES,
ALCOHOL-RESISTANT FOAMS ARE PREFERRED. IF WATER IS USED, IT SHOULD BE USED
IN VERY LARGE QUANTITIES. THE REACTION BETWEEN WATER AND ISOCYANATE MAY BE
VIGOROUS.

REQUIRED SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:
FIRE FIGHTERS SHOULD WEAR FULL-FACE, SELF-CONTAINED BREATHING APPARATUS AND
IMPERVIOUS PROTECTIVE CLOTHING. FIRE FIGHTERS SHOULD AVOID INHALING ANY
COMBUSTION PRODUCTS.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
WEAR FULL-PROTECTIVE CLOTHING AND RESPIRATORY PROTECTION AS
MAINTAINING EXPOSURES DURING CLEAN-UP BELOW THE APPLICABLE E
ENVIRONMENTAL PRECAUTIONS: DO NOT DISCHARGE SPILLAGE INTO DF
CLEAN-UP PROCEDURES:
REMOVE MECHANICALLY; COVER REMAINDERS WITH WET ABSORBENT MATERIAL (E.G.
SAND, EARTH, SAWDUST). AFTER APPROX. ONE HOUR TRANSFER TO WASTE CONTAINER
AND DO NOT SEAL (EVOLUTION OF CO2). KEEP DAMP IN A SAFE VENTILATED AREA FOR
SEVERAL DAYS.

7. HANDLING AND STORAGE

HANDLING:
AVOID CONTACT WITH SKIN AND EYE; DO NOT SMOKE, EAT AND DRINK AT THE
WORK-PLACE.

VENTILATION:
IF VAPOR OR MIST IS GENERATED DURING PROCESSING OR USE, LOCAL EXHAUST
VENTILATION SHOULD BE PROVIDED TO MAINTAIN EXPOSURES BELOW THE APPLICABLE
LIMITS.

PERSONAL PROTECTION: SEE SECTION 8.

STORAGE:
KEEP PRODUCT AWAY FROM SOURCES OF ALCOHOLS, AMINES, OR OTHER MATERIALS THAT
REACT WITH ISOCYANATES.AVOID PROLONGED HEATING ABOVE 160 DEG. C/320 DEG. F.
STORE THE PRODUCT IN TIGHTLY CLOSED CONTAINERS IN A WELL-VENTILATED PLACE
AND IN ACCORDANCE WITH NATIONAL REGULATIONS. KEEP OUT OF REACH OF CHILDREN.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

FOR EXPOSURE CONTROLS SEE SECTION 15.

COMPONENT EXPOSURE LIMITS:
**4,4'-DIPHENYLMETHANE DIISOCYANATE**

**NAME** | **CAS NO.** | **TYPE** | **PPM** | **MG/M3**
---|---|---|---|---
4,4'-DIPHENYLMETHANE DIISOCYANATE | 101-68-8 | OSHA PEL | 0.02 | 0.2
AGIHIH (TLV-TWA) | | | 0.005 |

**PERSONAL PROTECTION EQUIPMENT:**

**GENERAL:**
WEAR SUITABLE PROTECTIVE CLOTHING, PROTECTIVE GLOVES AND PROTECTIVE GOGGLES/MASK.

**SUITABLE MATERIALS FOR SAFETY GLOVES:**

- NATURAL RUBBER/NATURAL LATEX - NR (>/>= 0.5 MM)
- POLYCHLOROPRENE - CR (>/>= 0.5MM)
- NITRILE RUBBER - NBR (>/>= 0.35MM)
- BUTYL RUBBER - IIR (>/>= 0.5 MM)
- FLUORINATED RUBBER - FKM (>/>= 0.4 MM)

**RESPIRATORY PROTECTION:**
REQUIRED IN INSUFFICIENTLY VENTILATED WORKING AREAS AND DURING AIR-FED MASK, OR FOR SHORT PERIODS OF WORK, A COMBINATION OF FILTER AND PARTICULATE FILTER IS RECOMMENDED.

**EYES PROTECTION:**
CHEMICAL GOGGLES OR FULL FACE SHIELDS ARE RECOMMENDED. AN EYESHIELD AND SAFETY SHOWER SHOULD BE AVAILABLE IN THE WORK AREA. CONJUNCTIVITIS SHOULD NOT BE WORN WHEN WORKING WITH THIS PRODUCT.

**SKIN PROTECTION:**
WEAR SPECIAL GLOVES AND WORKING CLOTHES TO AVOID SKIN IRRITATION OR SENSITIZATION.

DEPENDING ON OPERATION, CHEMICAL RESISTANT BOOTS, OVERSHOES, AND APRON MAY ALSO BE REQUIRED.

**SUITABLE MATERIALS FOR CLOTHING:**
POLYETHYLENE/ETHYLENE VINYL ALCOHOL LAMINATES (PE/VAL) HAS BEEN REPORTED AS AN EFFECTIVE MATERIAL OF CONSTRUCTION FOR CHEMICAL PROTECTIVE CLOTHING FOR MDI.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL FORM:** LIQUID

**COLOR:** DARK-BROWN

**ODOR:** EARTHY, MUSTY

**BOILING POINT:** >300 DEG. C

**FLASH POINT:** >250 DEG. C

**VAPOR PRESSURE:** <0,00001 MBAR AT 20 DEG. C (DIPHENYL-METHANE-DIISOCYANATE)

**SPECIFIC GRAVITY:** APPROX. 1,14 G/CMM3 AT 20 DEG. C

**VISCOSITY:** 4,000 - 7,000 MPA.S AT 25 DEG. C (BROOKFIELD SP. 6/20 RPM)

**SOLUBILITY IN WATER:** REACTS
PERCENT VOC: 0%

10. STABILITY AND REACTIVITY

STABILITY:
THE PRODUCT IS STABLE UNDER THE RECOMMENDED HANDLING AND STORAGE CONDITIONS (SEE SECTION 7).

HAZARDOUS DECOMPOSITION PRODUCTS:
BY EXPOSURE TO HIGH TEMPERATURE, HAZARDOUS DECOMPOSITION PRODUCTS MAY DEVELOP, SUCH AS ISOCYANATE VAPOR AND MIST, CARBON DIOXIDE, CARBON MONOXIDE, NITROGEN OXIDE, AND TRACES OF HYDROGEN CYANIDE.

HAZARDOUS REACTION:
EXOTHERMIC REACTION WITH AMINES AND ALCOHOLS; REACTS WITH WATER FORMING HEAT, CO2, AND INSOLUBLE POLYUREA. THE COMBINED EFFECT OF CO2 AND HEAT CAN PRODUCE ENOUGH PRESSURE TO RUPTURE A CLOSED CONTAINER.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
LD50 ORAL, RAT: >5000 MG/KG
SKIN AND MUCOUS MEMBRANE COMPATIBILITY, RABBIT:
SKIN 8 HOUR’S EXPOSURE - SLIGHT REDDENING.
EYES: MODERATE REDDENING AND SLIGHT SWELLING.

INHALATION:
OVER-EXPOSURE MAY CAUSE IRRITATING EFFECTS ON NOSE THROAT AND RESPIRATORY TRACT.

SKIN CONTACT:
PROLONGED OR REPEATED CONTACT MAY RESULT IN TANNING AND IRRITATING EFFECTS.
EYE CONTACT: OVER-EXPOSURE MAY CAUSE IRRITATING EFFECTS ON EYES.

12. ECOLOGICAL INFORMATION

DO NOT ALLOW THE PRODUCT TO ESCAPE INTO WATERS, WASTEWATER OR SOIL.

BIODEGRADABILITY: 0% AFTER 28 DAYS

ACUTE FISH TOXICITY: LC50 >1,000 MG/L (96 HRS.)
TOXICITY FOR DAPHNIA: EC50 >1,000 MG/L (24 HRS.)
ACUTE BACTERIA TOXICITY: EC50 >100 MG/L (3 HRS.)

13. DISPOSAL CONSIDERATIONS

THE PRODUCT REMNANTS ARE CLASSIFIED AS CHEMICAL WASTE. DISPOSE OF WASTE ACCORDING TO LOCAL, STATE, FEDERAL, AND PROVINCIAL ENVIRONMENTAL REGULATIONS.

14. TRANSPORTATION INFORMATION

THIS PREPARATION IS NOT CLASSIFIED DANGEROUS ACCORDING TO INTERNATIONAL TRANSPORT REGULATIONS.
OTHER INFORMATION:
THIS PRODUCT IS NOT DANGEROUS CARGO. IRRITATING TO SKIN AND MUCOUS MEMBRANES. KEEP SEPARATED FROM FOODSTUFFS.

15. REGULATION INFORMATION

THIS PRODUCT AND ITS COMPONENTS ARE LISTED ON THE TSCA 8(B) INVENTORY.

SYMBOL: HARMFUL OR IRRITANT
HAZARD DESIGNATION: Xn - HARMFUL.
CONTAINS: 4,4'- DIPHENYLMETHANE DIISOCYANATE (MDI), ISOMERE.
R-PHRASES:
R20: HARMFUL BY INHALATION.
R36/37/38: IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
R42/43: MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.
S-PHRASES:
S23: DO NOT BREATHE GAS/FUMES/VAPOR/SFRAy.
S36/37: WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES.
S45:
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVI
(SHOW THE LABEL WHERE POSSIBLE).

ANY EXISTING NATIONAL REGULATIONS ON THE HANDLING OF ISOCYANATES MUST BE OBSERVED.

16. OTHER INFORMATION

THE INFORMATION HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE AS OF THE EFFECTIVE DATE GIVEN. HOWEVER, NO WARRANTY, EXPRESSED OR IMPLIED, IS GIVEN. IT IS THE BUYER'S RESPONSIBILITY TO ENSURE THAT ITS ACTIVITIES COMPLY WITH FEDERAL, STATE OR PROVINCIAL, AND LOCAL LAWS.

DATE: 01/26/2007

SAFETY DATA SHEET FOR NEW STRONGER-FASTER GORILLA GLUE