



## According to Safe Work Australia

Printing date 25.01.2016 Revision: 25.01.2016

## 1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name: GORILLA GLUE** 

Other Means of Identification: Mixture

Product Code: 41001, 4100101, 41002, 4100201, 41003, 4100301

Recommended Use of the Chemical and Restriction on Use: Polyurethane adhesive

**Details of Manufacturer or Importer:** 

Kincrome Australia Pty Ltd

3 Lakeview Drive Caribbean Park Scoresby VIC 3179

Phone Number: 03 9730 7100

Emergency telephone number: National Poison Information Centre: 13 11 26

## 2. HAZARDS IDENTIFICATION

#### **Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



skull and crossbones

Acute Tox. (Inhalation) 3 H331 Toxic if inhaled.



#### health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

## Signal Word Danger

#### **Hazard Statements**

H331 Toxic if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

# **Precautionary Statements**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P284	[In case of inadequate ventilation] wear respiratory protection.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P305+P351+P338	B IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if
	present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national regulations.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

#### **Chemical Characterization: Mixtures**

**Description:** Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester	56%
	<ul> <li>Acute Tox. (Inhalation) 3, H331;</li> <li>Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373;</li> <li>Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335</li> </ul>	
101-68-8	4,4'-methylenediphenyl diisocyanate  Acute Tox. (Inhalation) 3, H331; Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	20-30%
26447-40-5	methylenediphenyl diisocyanate  Acute Tox. (Inhalation) 3, H331; Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	1-5%

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#### 4. FIRST AID MEASURES

#### Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

#### **Skin Contact:**

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

#### **Eye Contact:**

In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention.

#### Ingestion:

If swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

#### **Symptoms Caused by Exposure:**

Ingestion: May cause gastrointestinal blockage and severe irritation of the gastrointestinal tract.

## 5. FIRE FIGHTING MEASURES

## Suitable 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.

#### **Specific Hazards Arising from the Chemical:**

Hazardous combustion products include carbon monoxide, carbon dioxide, nitrogen oxide, isocyanate vapour and traces of hydrogen cyanide. Dense smoke is emitted when product is burned without sufficient oxygen.

Do not reseal contaminated containers. A chemical reaction generating carbon dioxide gas pressure may occur causing rupture of the container.

#### **Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

**Environmental Precautions:** In the event of a major spill, prevent spillage from entering drains or water courses.

## Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with wet absorbent material (sand, earth, sawdust). After approximately 15 minutes transfer to waste container and do not seal due to evolution of carbon dioxide. Keep damp in a safe ventilated area for several days.

#### 7. HANDLING AND STORAGE

#### **Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Provide adequate ventilation.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always

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wash hands before smoking, eating, drinking or using the toilet. Contaminated work clothing must not be allowed out of the workplace. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

## **Conditions for Safe Storage:**

Store in a cool, dry and well ventilated area. Keep in original container tightly closed when not in use. Avoid prolonged heating above 160 °C. Keep away from alcohols, amines, or other materials that react with isocyanates.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### **Exposure Standards:**

### 9016-87-9 Isocyanic acid, polymethylenepolyphenylene ester

NES STEL: 0.07 mg/m³ TWA: 0.02 mg/m³

Sen, as -NCO

## 101-68-8 4,4'-methylenediphenyl diisocyanate

NES STEL: 0.07 mg/m<sup>3</sup>

TWA: 0.02 mg/m<sup>3</sup> Sen; as -NCO

## 26447-40-5 methylenediphenyl diisocyanate

NES STEL: 0.07 mg/m<sup>3</sup>

TWA: 0.02 mg/m³ Sen, as -NCO

## **Engineering Controls:**

Total enclosure with good general ventilation is recommended when isocyanates are used.

If total enclosure is not possible, local exhaust ventilation is recommended when vapours can be released in excess of established airborne exposure limits. Where local exhaust ventilation is installed, exhaust vapours should not be vented to the exterior in such a manner as to create a hazard.

#### **Respiratory Protection:**

If high airborne concentrations of the isocyanates are present and minimising exposure by ventilation is not possible, air-line respirators or self-contained breathing apparatus complying with Australian Standards AS/NZS 1715 and 1716 must be used.

#### **Skin Protection:**

Suitable materials for safety gloves:

Natural rubber/natural latex ≥ 0.5 mm

Polychloroprene ≥ 0.5 mm

Nitrile rubber - NBR ≥ 0.35 mm

Butyl rubber - IIR ≥ 0.5 mm

Fluorinated rubber - FKM ≥ 0.4 mm

See Australian/New Zealand Standard AS/NZS 2161 for more information.

When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

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.

See Australian/New Zealand Standard AS/NZS 4501 for more information.

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#### **Eye and Face Protection:**

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

Contact lenses should not be worn when working with this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Liquid Colour: Dark brown Odour: Earthy, musty **Odour Threshold:** Not determined. Melting point/Melting range: Not applicable Initial Boiling Point/Boiling Range: > 300 °C > 250 °C Flash Point: Flammability: Not determined. **Auto-ignition Temperature:** Not determined **Decomposition Temperature:** Not determined.

**Explosion Limits:** 

Lower: Not determined. Upper: 0.0 Vol %

**Vapour Pressure at 20 °C:** <0,00001 mbar (iphenyl-methane-diisocyan)

Relative Density at 20 °C: 1.14

Solubility in Water: Reacts with water

**Viscosity at 25 °C:** 4,000 – 7,000 mPa (Brookfield sp. 6/20 rpm)

Organic solvents: 0 %

# 10 . STABILITY AND REACTIVITY

## **Possibility of Hazardous Reactions:**

Exothermic reaction with amines and alcohols. Reacts with water forming heat, carbon dioxide and insoluble polyurea. The combined effect of carbon dioxide and heat can produce enough pressure to rupture a closed container.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

**Conditions to Avoid:** Avoid prolonged heating above 160 °C.

Incompatible Materials: Alcohols, amines, or other materials that react with isocyanates.

#### **Hazardous Decomposition Products:**

Carbon monoxide, carbon dioxide, nitrogen oxide, isocyanate vapour and traces of hydrogen cyanide.

## 11. TOXICOLOGICAL INFORMATION

## **Toxicity:**

LD <sub>50</sub> /LC <sub>50</sub> Values Relevant for Classification:
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#### 101-68-8 4,4'-methylenediphenyl diisocyanate

Oral LD<sub>50</sub> 2200 mg/kg (mouse)

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**Acute Health Effects** 

Inhalation: May cause respiratory irritation.

Skin: Causes skin irritation.

**Eye:** Causes serious eye irritation.

Ingestion: May cause gastrointestinal blockage and severe irritation of the gastrointestinal tract.

**Skin Corrosion / Irritation:** Causes skin irritation.

**Serious Eye Damage / Irritation:** Causes serious eye irritation.

# Respiratory or Skin Sensitisation:

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

#### Carcinogenicity:

Suspected of causing cancer.

Isocyanic acid, polymethylenepolyphenylene ester and 4,4'-methylenediphenyl diisocyanate are classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Isocyanic acid, polymethylenepolyphenylene ester, methylenediphenyl diisocyanate and 4,4'-methylenediphenyl diisocyanate are classified by Safe Work Australia as Carcinogen Category 3.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause respiratory irritation.

#### Specific Target Organ Toxicity (STOT) - Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available Existing Conditions Aggravated by Exposure:

Persons with a history of asthma, atopic conditions, hay fever, recurrent acute bronchitis, interstitial pulmonary fibrosis, pulmonary tuberculosis, occupational chest disease and impaired lung function should be advised against risking exposure to isocyanates.

# 12 . ECOLOGICAL INFORMATION

**Ecotoxicity:** No information available

Aquatic toxicity: No information available

Persistence and Degradability: No information available

Bioaccumulative Potential: This product does not bioaccumulate.

Mobility in Soil: No information available
Other adverse effects: No information available

## 13. DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

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#### **Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

# 14. TRANSPORT INFORMATION

UN Number Not regulated
Proper Shipping Name Not regulated
Dangerous Goods Class Not regulated
Packing Group: Not regulated

## 15. REGULATORY INFORMATION

Australian Inventory of Chemical Substances:	
9016-87-9	Isocyanic acid, polymethylenepolyphenylene ester
101-68-8	4,4'-methylenediphenyl diisocyanate
26447-40-5	methylenediphenyl diisocyanate

## 16. OTHER INFORMATION

Date of Preparation or Last Revision: 25.01.2016

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

## Abbreviations and acronyms:

GHS: Globally Harmonised System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC₅₀: Lethal concentration, 50 percent

LD₅₀: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Acute Tox. (Inhalation) 3: Acute toxicity, Hazard Category 3 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Resp. Sens. 1: Respiratory sensitisation, Hazard Category 1

Skin Sens. 1: Skin sensitisation, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

## Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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