

HOLDFAST® GORILLA GRIP® EXPRESS – 1 HOUR CURE MATERIAL SAFETY DATA SHEET

1. Identification of the Substance/Preparation

1.1 Identification of the substance or preparation:

Product Name: HOLDFAST® Gorilla Grip® Express – 1 Hour Cure

1.2 Product Code:
20075 (310ml cartridge)

1.3 Product description:

Gorilla Grip Express is a ready to use, fast curing one component, transparent polyurethane assembly adhesive with high bond strength.

1.4 Identification of product:

Use: Polyurethane



2. Composition/Information on Ingredients

Hazardous Ingredients	CAS - Nr	CONC.	SYMBOL	R-phrases
diethylmethylenbenzenediamine	68479-98-1 270-877-4	1-5	Xn;N	21/22-36-48/22-50/53(1)
polymethylenepolyphenylisocyanate	9016-87-9	>25	Xn	20-36/37/38-42/43(1)

3. Hazards Identification

- Harmful by inhalation
- Irritating to eyes, respiratory system and skin
- May cause sensitization by inhalation and skin contact

4. First Aid Measures

4.1 Swallowed:

Never give water to an unconscious person. Do not induce vomiting. Seek medical advice.

4.2 Eye contact:

Rinse immediately with plenty of water Seek medical advice.

4.3 Skin Absorption:

Rinse immediately with plenty of water. If irritation persists seek medical advice.

4.4 Inhalation:

Remove the victim into fresh air Seek medical advice.

5. Fire-Fighting Measures

5.1 Fire extinguishing media:

Water spray, polyvalent foam, BC powder, carbon dioxide.

5.2 Special exposure hazards:

On burning release of toxic and corrosive gases/vapours nitrous vapours, carbon monoxide and carbon dioxide.

5.3 Special protective equipment for fire-fighters:

heat/fire exposure compressed air/oxygen apparatus. Protective clothing for exposure to chemicals.

5.4 Instructions:

Cool closed containers with water if they are exposed to the fire. Dilute toxic gases with water spray. Do not move the load if exposed to heat.

6. Accidental Release Measures

6.1 Environmental precautions:

Contain released substance

6.2 Methods for cleaning up:

- Solid spill cover with dry absorbent material.
- Collect the spill only if it is in a dry state.
- Clean contaminated surfaces with an excess of water.
- Wash clothing and equipment after handling.

7. Handling and Storage

7.1 Handling:

- Observe very strict hygiene – avoid contact. Remove contaminated clothing immediately. Clean contaminated clothing.

7.2 Storage:

Keep container tightly closed. Store in a dry area. Ventilation at floor level. Keep only in the original container. Keep away from heat sources, water/moist.

<i>Storage Temperature:</i>	0/50°C
<i>Quantity Limit:</i>	N.D kg
<i>Storage Life:</i>	<365 days
<i>Materials for Packaging:</i>	Polyethylene

7.3 Specific Uses:

- See information supplied by the manufacturer

8. Exposure Controls/Personal Protection

8.1 Exposure limit values:

POLYMETHYLENEPOLYPHENYLISOCYANATE

MEL-LTEL	: 0.02 (-NCO) mg/m ³ ppm
MEL-STEL	: 0.07 (-NCO) mg/m ³ ppm
TLV-Ceiling	: not listed

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

- Measure the concentration in the air regularly

8.2.2 Environmental exposure controls: see heading 13

8.3 Personal protection:

8.3.1 Respiratory protection:

- In case of insufficient ventilation respiratory protection with filter type A

8.3.2 Hand protection:

- Chemically resistant gloves. Polyethylene gives good resistance.

8.3.3 Skin protection:

- Suitable protective clothing. Polyethylene gives good resistance.

8.3.4 Eye protection:

- Safety glasses

9. Physical and Chemical Properties

<i>Appearance (at 20°C):</i>	Paste
<i>Odour:</i>	Characteristic
<i>Colour:</i>	Colourless
<i>Flashpoint:</i>	>165°C
<i>Water Solubility:</i>	Reacts with water
<i>Relative vapour density:</i>	>2

10. Stability and Reactivity

10.1 Conditions to avoid/reactivity

- Unstable on exposure to moisture

10.2 Materials to avoid:

- Keep away from heat sources, water/moist

10.3 Hazardous decomposition products:

- Reacts slowly with water (moisture), release of carbon dioxide, pressure rise and possible bursting of container. Decomposes on exposure to temperature rise, release of toxic/combustible gases/vapours, hydrogen cyanide. On burning, release of toxic and corrosive gases/vapours, nitrous vapours, carbon monoxide and carbon dioxide.

11. Toxicological Information

11.1 Acute toxicity:

DIETHYLEMETHYLBENZENEDIAMINE

LD50 oral rat	: >598	mg/kg
LD50 dermal rabbit	: >2000	mg/kg
LD50 dermal rabbit	: >700	mg/kg

POLYMETHYLENEPOLYPHENYLISOCYANATE

LD50 oral rat	: >10000	mg/kg
LD50 dermal rabbit	: >5000	mg/kg

11.2 Chronic toxicity:

POLYMETHYLENEPOLYPHENYLISOCYANATE

Carcinogenicity (MAK) : Category 3B

Teratogenicity (MAK) : Group -

IARC classification : 3

11.3 Routes of exposure:

Ingestion, inhalation, eyes and skin

11.4 Acute effects/symptoms:

- *After Inhalation:* Dry/sore throat, coughing, irritation of the respiratory tract, irritation of the nasal mucous membranes, runny nose. THE FOLLOWING SYMPTOMS MAY APPEAR LATER, inflammation of the respiratory tract, risk of lung oedema, respirator difficulties.

- *After Skin Contact:* Tingling/irritation of the eye tissue, Lacrimation

- *After Ingestion:* Irritation of the gastric/intestinal mucosa

- *After Eye Contact:* Irritation of the eye tissue, lacrimation

11.5 Chronic effects:

- May cause sensitization by skin contact.
- May cause sensitization by inhalation.
- Not listed in carcinogenicity class (IARC, EC, TLV, MAK).
- Not listed in mutagenicity class (EC, MAK).
- Not classified as toxic to reproduction (EC).

ON CONTINUOUS EXPOSURE/CONTACT:

- Body temperature rise
- Tremor
- Feeling of weakness
- Headache
- Skin rash/inflammation
- May stain the skin
- Dry skin
- Risk of pneumonia.

12. Ecological Information

12.1 Ecotoxicity:

DIETHYLEMETHYLBENZENEDIAMINE

LC50 (48h) 194mg/l (LEUCISCUS IDUS)

EC50 (48h) 0.5mg/l (DAPHNIA MAGNA)

12.2 Mobility:

Volatile organic compounds (VOC): 0% / 0 gm/l

- Insoluble in water

For other physicochemical properties see section 9

12.3 Persistence and degradability:

- biodegradation BOD ₅	: N.D	% ThOD
- water	: No data available	
- soil	: T $\frac{1}{2}$: N.D	days

12.4 Bioaccumulative potential:

- log P _{ow}	: N.D
- BCF	: N.D

12.5 Other adverse effects:

- WGK	: - (Classification based on the components as per per Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 17 May 1999)
- Effect on the ozone layer	: Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect	: no data available
- Effect on wastewater purification	: no data available

13. Disposal Considerations

13.1 Provisions relating to waste:

Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 04 09* (waste adhesives and sealants containing organic solvents or other dangerous substances). Hazardous waste (91/689/EEC)

13.2 Disposal methods:

- Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber

13.3 Packaging:

Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10* (packaging containing residues of or contaminated by dangerous substances)

14. Transport Information

No restricted for any mode of international transport.

15. Regulatory Information

Labelling in accordance with directives 67/548/EEC and 1999/45/EC

Contains: Polymethylenepolyphenylisocyanate

R20: Harmful by inhalation

R36/37/38: Irritating to eyes, respiratory system and skin

R42/43: May cause sensitisation by inhalation and skin contact.

S(02): (Keep out of reach of children)

S23: Do not breathe vapour
 S36/37: Wear suitable protective clothing and gloves
 S45: In case of accident or if you feel unwell, seek medical advice (show the label where possible)
 S(63): (In case of accident by inhalation: remove casualty to fresh air and keep at rest. Contains isocyanates. See information supplied by the manufacturer.

16. Other Information

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A.= Not Applicable

N.D.= Not Determined

(*)= Internal Classification

Exposure Limits

TLV: Threshold Limit Value – ACGIH US 2000

OES: Occupational Exposure Standards – United Kingdom 1999

MEL: Maximum Exposure Limits – United Kingdom 1999

MAK: Maximale Arbeitsplatzkonzentrationen – Germany 2001

TRK: Technische Richtkonzentrationen – Germany 2001

MAC: Maximale aanvaarde concentratie – The Netherlands 2002

VME: Valeurs limites de Moyenne d'Exposition – France 1999

VLE: Valeurs limites d'Exposition a court terme – France 1999

GWBB: Grenswaarde beroepsmatige blootstelling – Belgium 1998

GWK: Grenswaarde kortstondige blootstelling – Belgium 1998

EC: Indicative occupational exposure limit values – directive 2000/39/EC

I: Inhalable fraction = T: Total dust = E: Einatembare Aerosolanteil

R: Respirable Fraction = A: Alveolar Dust

C: Ceiling Limit

a: Aerosol r: rook/rauch (Fume)

d: damp vapour) st: stof/staub (dust)

du: dust ve: vezel (Fibre)

fa: Faser (fibre) va: vapour

fi: fibre om: oil mist

fu: fume on: olienevel (oil mist)

p: Dust part: particles

Chronic toxicity:

K: List of the carcinogenic substances and processes- the Netherlands 2002

Health and Safety Recommendation

– Apply the usual industrial hygiene

Last Updated: 15th June 2010