

HOLDFAST® GORILLA GRIP® PREMIUM ADHESIVE MATERIAL SAFETY DATA SHEET

Product Code: 19290, 19291, 19387

Product Name: HOLDFAST® GORILLA GRIP® Premium Adhesive

Product Description

HOLDFAST® GORILLA GRIP® Premium Adhesive is a fast curing adhesive with high bond strength. It is a Polyurethane based adhesive which cures transparent and is highly water resistant.

Identification of Product

Use: Polyurethane
Chemical Nature: Preparation of polyurethane prepolymer

Hazardous Ingredients

	CAS – Nr EINECS/ELINCS No.	CONC. In %	HAZARD SYMBOL	R-phrases
diethylmethylenediamine	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)

Hazardous Identification:

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

Physical Description/Properties

Appearance (at 20°C)	Paste	Water Solubility	Reacts with water
Odour	Characteristic	Soluble in	No Data Available
Colour	Colourless	Relative vapour density	>2
pH Value	N.D.	Viscosity (at 20°C)	N.D.
Boiling point/boiling range	N.D.	Partition coefficient n-octanol/water	N.D.
Flash point	>165°C	Evaporation rate:	
Explosion limits	N.D.	Ratio to butyl acetate	N.D.
Vapour Pressure (at 20°C)	N.D.	Ratio to ether	N.D.
Vapour Pressure (at 50°C)	N.D.	Melting point/melting range	N.D.
Relative density (at 20°C)	N.D.	Auto-ignition point	N.D.
		Saturation concentration	N.D.

First Aid

After Ingestion

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

After Eye Contact

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

After Skin Contact

- Rinse immediately with plenty of water
- If irritation persists: Seek medical advice

After Inhalation

Remove the victim into fresh air

Personal Protection Information

Exposure Controls:

Occupational exposure controls

Measure the concentration in the air regularly

Environmental exposure controls

See Environment Precautions

Respiratory Protection

In case of insufficient ventilation: respiratory protection with filter A

Hand Protection

Chemically resistant gloves suitable materials: GIVE GOOD RESISTANCE Polyethylene

Eye Protection

Safety Glasses

Skin Protection

Suitable protective clothing suitable materials: GIVE GOOD RESISTANCE: Polyethylene

Safe Storage and Handling

Handling

Keep containers dry and closed.

Keep away from Foodstuffs.

Wash hands thoroughly before breaks and at the end of the working day.

Storage

Store in a cool and well ventilated place in the original containers. Storage temperature between +5°C and +25°C.

Fire – Fighting Measures

Suitable Extinguishing Media:

- Water Spray
- Polyvalent Foam
- BC Powder
- Carbon dioxide

Unsuitable Extinguishing Media:

No data available

Special Exposure Hazards:

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

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

Special protective equipment for fire fighters:

- Heat/fire exposures: compressed air/oxygen apparatus
- Protective clothing for exposure to chemicals

Hazardous Reactions

Exothermic reaction with amines and alcohols.
CO₂ – formation in reaction with water.

Accidental Release Measures

Environmental precautions:

Contain released substance

Method of 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

Stability & Reactivity Data

Conditions to avoid/reactivity

Unstable on exposure to moisture

Materials to avoid

Keep away from: heat sources, water/moist

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.

Handling & Storage

Handling:

Observe very strict hygiene – avoid contact

Remove contaminated clothing immediately

Clean contaminated clothing

Storage:

Keep container tightly closed

Store in a dry area

Ventilation at floor level

Keep only from: heat sources, water/moist

Storage temperature: 0/50°C

Quantity limit: N.D.

Storage Life: <365 days

Materials for packing: Polyethylene

Health Hazard/Toxicological Properties Overexposure Effects

Exposure limit Values:
POLYMETHYLENEPOLYPHENYLISOCYANATE
MEL-LTEL: 0.02 (-NCO)mg/m³
MEL-STEL: 0.07 (-NCO)mg/m³

Toxicological Information

Acute toxicity:
DIETHYLMETHYLBENZENEDIAMINE
LD50 oral rate: >598mg/kg
LD50 dermal rabbit: >2000mg/kg
LD50 dermal rabbit: >700mg/kg

POLYMETHYLENEPOLYPHENYLISOCYANATE
LD50 oral rat: >10000mg/kg
LD50 dermal rabbit: N.D.
LD50 dermal rabbit: >5000mg/kg

Chronic Toxicity:
POLYMETHYLENEPOLYPHENYLISOCYANATE
EC carc. Cat.: Not listed
EC muta. Cat. : Not listed
EC repr. Cat.: Not listed

Carcinogenicity (TLV): Not listed
Carcinogenicity (MAC): Not listed
Carcinogenicity (VME): Not listed
Carcinogenicity (GWBB): Not listed

Carcinogenicity (MAK): See Hazardous Identification
Mutagenicity (MAK): Not listed
Teratogenicity (MAK): Group –
IARC classification: 3

Routes of exposure:
Ingestion, inhalation, eye and skin

Acute effects/symptoms

After Inhalation:

- Dry/sore throat
- Coughing
- Irritation of the respiratory tract
- Irritation of the nasal mucous membranes
- Runny nose

Following symptoms may appear later
Inflammation of the respiratory tract
Risk of lung oedema
Respiratory difficulties

After Skin Contact
Tingling of the Irritation of the skin

After Ingestion:
Irritation of the gastric/intestinal mucosa

After eye contact:
Irritation of the eye tissue, Lacrimation

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

Ecological Information

Ecotoxicity

DIETHYLMETHYLBENSENEDIAMINE:

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

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

Mobility

Volatile organic compounds (VOC): 0.1%

Insoluble in water

For other physicochemical properties see heading Physical and chemical properties.

Persistence and degradable

Biodegradable BOD₅: N.D.

Water: No data available

Soil: T1/2 N.D.

Bioaccumulative Potential:

Log P_{ow}: N.D.

BCF: N.D.

Other Adverse Effects:

WGK: - (classification in compliance with verwaltungsvorschrift wassergefahrdender 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 waste water purification: No data available

Occupational Exposure Control Limits

TVL-STEL TVL-TWA

Ppm mg/m³ Ppm mg/m³

MDI 0.005 0.051

Regulatory Information

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.

Transport Information

Not restricted for any mode of international transport

Disposal Considerations

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)

Disposal Methods:

Remove to an authorised incinerator equipped with an afterburner and a flue gas scrubber.

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.)

Health and Safety Recommendation

– Apply the usual industrial hygiene

Other Information

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 aanvaardbare 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: Einatembarer 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

Remark

The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

Last Updated: 2 February 2006