

**GORILLA® NAILPOWER DIY FLEXI EXPANDING FOAM CLICK & FIX
 MATERIAL SAFETY DATA SHEET**
1. Identification of the Substance/Preparation
1.1 Identification of the substance or preparation:

Product Name: GORILLA® Nailpower DIY FLEXI Expanding Click & Fix 750ml
Other Names: *Other generic names*
Proper shipping name:-
Recommended Use: -

1.2 Product Code:
 20041 (750ml)

1.3 Contact Details:

Holdfast NZ LTD
 14 Avalon Drive
 Newton
 Hamilton 3200
 New Zealand

Freephone: 0800 70 10 80
 Phone: (07) 847 5540
 Fax: (07) 847 0324
 Email: sales@holdfast.co.nz
 Website: www.holdfast.co.nz


2. Hazards Identification
**HSNO Classification 2.1.1A, 6.1D, 6.1E, 6.3B, 6.4A, 6.9A, 9.1D
 DSD/DPD**

Classified dangerous in accordance with Directives 67/548/EEC and 1999/45/EC
 Harmful by inhalation
 Irritating to eyes, respiratory system and skin
 Limited evidence of a carcinogenic effect
 May cause sensitisation by inhalation and skin contact
 Harmful: danger of serious damage to health by prolonged exposure through inhalation

Other hazards:

May be ignited by sparks
 Gas/vapour spreads at floor level: ignition hazard
 Aerosol may explode under the effect of heat

3. Composition/Information on Ingredients

Hazardous Ingredients	CAS No. EINECS No.	Conc. In %	Hazard Symbol	Risks (R-phrases)
tris(2-chloro-1-methylethyl) phosphate	13674-84-5 237-158-7	1%<C<25%	Xn	R22
polymethylene polyphenyl isocyanate	9016-87-9	C>25%	Carc. Cat. 3; Xn Xi	R40, R20 - 48/20, R36/37/38 R42/43
Propane	74-98-6 200-827-9	1%<C<10%	F+	R12 (1)

Isobutane	75-28-5 200-857-2	1%<C<10%	F+	R12 (1)
Dimethyl ether	115-10-6 204-065-8	1%<C<10%	F+	R12 (1)

4. First Aid Measures

4.1 Swallowed:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting
Consult a doctor/medical service if you feel unwell.

4.2 Eye contact:

Rinse immediately with plenty of water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists

4.3 Skin Absorption:

Wash immediately with lots of water. Take victim to a doctor if irritation persists.

4.4 Inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service

5. Fire-Fighting Measures

5.1 Suitable extinguishing media:

- Quantities of water
- Polyvalent foam
- BC powder
- Carbon dioxide

5.2 Special exposure hazards:

- On burning: release of toxic and corrosive gases/vapours: phosphorus oxides, nitrous vapours, hydrogen chloride, carbon monoxide and carbon dioxide.
- Gas/vapour spreads at floor level: ignition hazard.
- Gas/vapour flammable with air within explosion limits.
- Aerosol may explode under the effect of heat.

5.4 Special protective equipment for firefighters:

Heat/fire exposure: compressed air/oxygen apparatus.

6. Accidental Release Measures

6.1 Environmental precautions:

Dam up the solid spill
Use appropriate containment to avoid environmental contamination
See heading 13

6.2 Methods of cleaning up:

Allow product to solidify and remove it by mechanical means
Carefully collect the spill/leftovers
Clean (treat) contaminated surfaces with acetone
Take collected spill to manufacturer/competent authority
Wash clothing and equipment after handling

7. Handling and Storage

7.1 Handling:

- Use spark-/explosionproof appliances and lighting system
- Observe very strict hygiene - avoid contact
- Keep away from naked flames/heat
- Keep away from ignition sources/sparks

7.2 Storage:

Safe storage requirements:

Store in a cool area
Keep out of direct sunlight
Ventilation at floor level
Fireproof storeroom
Unauthorized persons are not admitted
Meet the legal requirements
Storage temperature: < 50 °C
Max. storage time: 1 year(s)

Keep away from:

(strong) acids
(strong) bases
amines

Suitable packaging material:

Aerosol

7.3 Specific uses:

- See information supplied by the manufacturer

8. Exposure Controls/Personal Protection

8.1 Exposure limit values:

POLYMETHYLENE POLYPHENYL ISOCYANATE:

TLV-TWA	:		mg/m3		ppm
TLV-STEL	:		mg/m3		ppm
TLV-Ceiling	:		mg/m3		ppm
MEL-LTEL	:	0.02(-NCO)	mg/m3	-	ppm
MEL-STEL	:	0.07(-NCO)	mg/m3	-	ppm
MAK	:	-	mg/m3	-	ppm
TRK	:		mg/m3		ppm
MAC-TGG 8 h	:		mg/m3		
MAC-TGG 15 min.	:		mg/m3		
MAC-Ceiling	:		mg/m3		
VME-8 h	:		mg/m3		ppm
VLE-15 min.	:		mg/m3		ppm
GWBB-8 h	:		mg/m3		ppm
GWK-15 min.	:		mg/m3		ppm
Momentary value	:		mg/m3		ppm
EC	:		mg/m3		ppm
EC-STEL	:		mg/m3		ppm

PROPANE:

TLV-TWA	:		mg/m3	1000	ppm
TLV-STEL	:		mg/m3	-	ppm
TLV-Ceiling	:		mg/m3		ppm
OES-LTEL	:		mg/m3		ppm
OES-STEL	:		mg/m3		ppm

MAK	:	1800	mg/m3	1000	ppm
TRK	:		mg/m3		ppm

ISOBUTANE:

TLV-TWA	:		mg/m3		ppm
TLV-STEL	:		mg/m3		ppm
TLV-Ceiling	:		mg/m3		ppm

OES-LTEL	:		mg/m3		ppm
OES-STEL	:		mg/m3		ppm

MAK	:	2400	mg/m3	1000	ppm
TRK	:		mg/m3		ppm

DIMETHYL ETHER:

TLV-TWA	:		mg/m3		ppm
TLV-STEL	:		mg/m3		ppm
TLV-Ceiling	:		mg/m3		ppm

OES-LTEL	:	766	mg/m3	400	ppm
OES-STEL	:	958	mg/m3	500	ppm

MAK	:	1900	mg/m3	1000	ppm
TRK	:		mg/m3		ppm

MAC-TGG 8 h	:	950	mg/m3		
MAC-TGG 15 min.	:	1500	mg/m3		
MAC-Ceiling	:		mg/m3		

VME-8 h	:		mg/m3		ppm
VLE-15 min.	:		mg/m3		ppm

GWBB-8 h	:	1920	mg/m3	1000	ppm
GWK-15 min.	:	-	mg/m3	-	ppm
Momentary value	:		mg/m3		ppm

EC	:	1920	mg/m3	1000	ppm
EC-STEL	:	-	mg/m3	-	ppm

8.2 Exposure controls:

8.2.1 Occupational exposure controls:

Measure the concentration in the air regularly

Personal protective equipment:

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit

b) Hand protection:

Gloves

c) Eye protection:

Protective goggles

d) Skin protection:

Head/neck protection

Protective clothing

8.2.2 Environmental exposure controls: see Section 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.

8.3.3 Eye protection:

- Safety glasses.

8.3.4 Skin protection:

- Suitable protective clothing.

9. Physical and Chemical Properties

9.1 General information:

Appearance (at 20°C)	:	Aerosol
Odour	:	Characteristic
Colour	:	Variable in colour, depending on the composition

9.2 Important health, safety and environmental information:

pH value	:	N.D.	
Boiling point/boiling range	:	N.D.	°C
Flashpoint	:	Contains extremely flammable components	
Explosion limits	:	N.D.	vol%
Vapour pressure (at 20°C)	:	N.D.	hPa
Vapour pressure (at 50°C)	:	N.D.	hPa
Relative density (at 20°C)	:	N.D.	
Water solubility	:	Insoluble	
Soluble in	:	Organic solvents	
Relative vapour density	:	> 1	
Viscosity	:	N.D.	Pa.s
Partition coefficient n-octanol/water	:	N.D.	
Evaporation rate			
ratio to butyl acetate	:	N.D.	
ratio to ether	:	N.D.	

9.3 Other information:

Melting point/melting range	:	N.D.	°C
Auto-ignition point	:	N.D.	°C
Saturation concentration	:	N.D.	g/m ³

10. Stability and Reactivity

10.1 Conditions to avoid/reactivity:

Possible fire hazard:	heat sources, ignition sources
Stability:	Stable under normal conditions
Reactions:	May polymerize with many compounds e.g.: (strong) bases and amines Reacts violently with (some) acids/bases

10.2 Materials to avoid:

(strong) acids
(strong) bases
Amines

10.3 Hazardous decomposition products:

On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide)

On heating: release of toxic/combustible gases/vapours (hydrogen cyanide)

11. Toxicological Information

11.1 Acute toxicity:

POLYMETHYLENE POLYPHENYL ISOCYANATE:

LD50 oral rat	:	> 10000	mg/kg
LD50 dermal rat	:	N.D.	mg/kg
LD50 dermal rabbit	:	> 5000	mg/kg
LC50 inhalation rat	:	N.D.	mg/l/4 h
LC50 inhalation rat	:	N.D.	ppm/4 h

tris(2-chloro-1-methylethyl) phosphate:

LD50 oral rat	:	1150/1750	mg/kg
LD50 dermal rabbit	:	> 2000	mg/kg
LD50 dermal rabbit	:	> 2000	mg/kg
LC50 inhalation rat	:	> 5	mg/l/4 h
LC50 inhalation rat	:	N.D.	ppm/4 h

PROPANE:

LD50 oral rat	:	N.D.	mg/kg
LD50 dermal rat	:	N.D.	mg/kg
LD50 dermal rabbit	:	N.D.	mg/kg
LC50 inhalation rat	:	513	mg/l/4 h
LC50 inhalation rat	:	N.D.	ppm/4 h

ISOBUTANE:

LD50 oral rat	:	N.D.	mg/kg
LD50 dermal rat	:	N.D.	mg/kg
LD50 dermal rabbit	:	N.D.	mg/kg
LC50 inhalation rat	:	> 50	mg/l/4 h
LC50 inhalation rat	:	N.D.	ppm/4 h

DIMETHYL ETHER:

LD50 oral rat	:	N.D.	mg/kg
LD50 dermal rat	:	N.D.	mg/kg
LD50 dermal rabbit	:	N.D.	mg/kg
LC50 inhalation rat	:	309	mg/l/4 h
LC50 inhalation rat	:	N.D.	ppm/4 h

11.2 Chronic toxicity:

No certainty about human carcinogenic properties

Not listed in mutagenicity class (EC,MAK)

Contains a substance of group C (MAK-Schwangerschaftsgruppe)

POLYMETHYLENE POLYPHENYL ISOCYANATE:

EC carc. cat.	:	3
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)	:	3B
Mutagenicity (MAK)	:	not listed
Teratogenicity (MAK)	:	-

IARC classification	:	3
DIMETHYL ETHER:		
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)	:	not listed
Mutagenicity (MAK)	:	not listed
Teratogenicity (MAK)	:	D
IARC classification	:	not listed

11.3 Routes of exposure: inhalation, eyes and skin

11.4 Acute effects/symptoms (upon overexposure):

- Inhalation:* Dry/sore throat
Coughing
Irritation of the respiratory tract
Irritation of the nasal mucous membranes
Runny nose
FOLLOWING SYMPTOMS MAY APPEAR LATER:
Possible inflammation of the respiratory tract
Risk of lung oedema
Respiratory difficulties
- Skin contact:* Tingling/irritation of the skin
- Eye contact:* Irritation of the eye tissue
Lacrimation
- Ingestion:* Not applicable

11.5 Chronic effects:

- Prolonged exposure: danger of damage to health through inhalation
ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:
Feeling of weakness
Itching
Skin rash/inflammation
May stain the skin
Dry skin
Coughing
Possible inflammation of the respiratory tract
Respiratory difficulties

12. Ecological Information

12.1 Ecotoxicity:

Propane

LC50 fishes

species	Value	duration(h)	remarks
PISCES	>1000mg/l	96h	

dimethyl ether

LC50 fishes

species	Value	duration(h)	remarks

PISCES	>1000mg/l	96h	
tris(2-chloro-1-methylethyl) phosphate LC50 fishes			
species BRACHYDANIO RERIO	Value 56.2 mg/l	duration(h) 96h	remarks
EC50 Daphnia			
species DAPHNIA MAGNA	Value 65 - 335 mg/l	duration(h) 48h	remarks
EC50 other aquatic organisms			
species SCENEDESMUS SUBSPICATUS	Value 45 mg/l	duration(h) 72 h	remarks

12.2 Mobility:

Volatile organic compounds (VOC) 17 %
Solubility in/reaction with water Literature reports: insoluble in water

12.3 Persistence and degradability:

Contains non readily biodegradable component(s)

12.4 Bioaccumulative potential:

No bioaccumulation data available

12.5 Other adverse effects:

Not dangerous for the ozone layer (1999/45/EC)

13. Disposal Considerations

13.1 Provisions relating to waste:

- Waste material code(75/442/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001):
08 04 10 (waste adhesives and sealants other than those mentioned in 08 04 09)

13.2 Disposal methods:

Specific treatment
Remove waste in accordance with local and/or national regulations
Do not discharge into drains or the environment

13.3 Packaging/Container:

- Waste material code packaging (75/442/EEC, Council Decision 2001/118/EC, O.J L47 of
16/2/2001): 15 01 02 (plastic packaging)

14. Transport Information

14.1 Classification of the substance in compliance with UN Recommendations:

UN-number : 1950
CLASS : 2.1
SUB RISKS : -
PACKING : -
PROPER SHIPPING NAME :
UN 1950, Aerosols

14.2 ADR (transport by road)

CLASS : 2
PACKING :
CLASSIFICATION CODE : 5 F
DANGER LABEL TANKS : -
DANGER LABEL PACKAGES : 2.1

14.3 RID (transport by rail)

	CLASS	: 2
	PACKING	:
	CLASSIFICATION CODE	: 5 F
	DANGER LABEL TANKS	: -
	DANGER LABEL PACKAGES	: 2.1
14.4	ADNR (transport by inland waterways)	
	CLASS	: 2
	PACKING	:
	CLASSIFICATION CODE	: 5 F
	DANGER LABEL TANKS	: -
	DANGER LABEL PACKAGES	: 2.1
14.5	IMDG (maritime transport)	
	CLASS	: 2.1
	SUB RISKS	: -
	PACKING	: -
	MFAG	: -
	EMS	: F – D, S - U
	MARINE POLLUTANT	: -
14.6	ICAO (air transport)	
	CLASS	: 2.1
	SUB RISKS	: -
	PACKING	: -
	PACKING INSTRUCTIONS PASSENGER AIRCRAFT	: 203/Y203
	PACKING INSTRUCTIONS CARGO AIRCRAFT	: 203
14.7	Special precautions in connection with transport	: None

14.8 Limited quantities (LQ):

When substances and their packaging meet the conditions established by ADR/RID/ADNR in chapter 3.4, **only** the following prescriptions shall be complied with:

each package shall display a diamond-shaped figure with the following inscription:

- 'UN 1950'

or, in the case of different goods with different identification numbers within a single package:

- the letters 'LQ'

15. Regulatory Information

15.1 Classifications in accordance with New Zealand Standards:

Assigned to group standard HSR002515



DANGER

H220:	Extremely flammable gas.
H316:	Causes mild skin irritation.
H319:	Causes serious eye irritation.
H330:	Fatal if inhaled.
H370:	Causes damage to organs.
P102:	Keep out of reach of children.
P103:	Read label before use.
P210:	Keep away from heat/sparks/open flames. No smoking.

P260:	Do not breathe fumes.
P264:	Wash hands thoroughly after handling.
P270:	Do not eat, drink or smoke when using this product.
P271:	Use only outdoors or in a well-ventilated area.
P280:	Wear protective gloves/clothing/eye protection/face protection.
P284:	Wear respiratory protection.

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 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 à 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: Alveolengängiger Aerosolanteil/Alveolar dust
C	: Ceiling limit	

a:	aerosol	r:	rook/Rauch	(fume)
d:	damp	st:	Stof/Staub	(dust)
du:	dust	ve:	vezel	(fibre)
fa:	Faser	va:	vapour	
fi:	fibre	om:	oil mist	
fu:	fume	on:	Olienevel/Ölnebel	(oil mist)
p:	poussière	part:	particles	

Chronic toxicity:

K	: List of the carcinogenic substances and processes – the Netherlands 2002
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Full text of any R-phrases referred to under heading 2:

R12	: Extremely flammable
R20	: Harmful by inhalation
R22	: Harmful if swallowed
R36/37/38	: Irritating to eyes, respiratory system and skin
R42/43	: May cause sensitisation by inhalation and skin contact

Health and Safety Recommendation

- Apply the usual industrial hygiene

Last Updated: 5th April 2013