



H.B. Fuller Company

eFuller
WORLD LEADER IN ADHESIVES

MATERIAL SAFETY DATA SHEET FOR: RAPID GRIP

Replaces: May 2000. Date of issue: 11 May 2005

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Rapid Grip, (Gel and Liquid)

Other Names: ADHESIVES containing flammable liquid

Recommended Use: Used in the cabinet making industry for bonding decorative laminates to wood or particleboard. Apply with brush or notched trowel.

Company: H. B. Fuller Company

Address: 16-22 Red Gum Drive, Dandenong South VIC 3175

Telephone: (03) 9797 6222

Emergency Telephone No: 1800 033 111

2. HAZARD IDENTIFICATION

Classified as hazardous according to criteria of Worksafe Australia

Hazard Category:

Xn Harmful

Xi Irritant

Risk Phrase(s):

R10: Flammable.

R20: Harmful by inhalation.

R43: May cause sensitisation by skin contact.

R36/38: Irritating to eyes and skin.

R65: Harmful: May cause lung damage if swallowed.

R67: Vapours may cause drowsiness and dizziness.

Safety Phrase(s)

S2: Keep out of the reach of children.

S3/9/49: Keep only in the original container in a cool, well-ventilated place.

S21: When using, do not smoke.

S23: Do not breathe vapour.

S24/25: Avoid contact with skin and eyes.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

S62: If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

Class: 3 Flammable Liquid

Poisons Schedule (Aust): S5

This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.



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3. COMPOSITION

Ingredients

Chemical Name	CAS #	PERCENT
Toluene	108-88-1	Med
Acetone	67-64-1	Med
Naphtha (petroleum), hydrotreated light	64742-49-0	Med
Formaldehyde, p-tert-butylphenol polymer	25085-50-1	Low
Non-hazardous ingredients	-	to 100%

Low <10%

Med. 10-30%

High 30-60%

V High >60%

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.

Skin contact: For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

Eye contact: If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

Ingestion: Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek immediate medical assistance.

Notes to physician: Treat symptomatically and as for exposure to aromatic hydrocarbon solvents. Do not give epinephrine or related drugs. Aspiration can result in pulmonary oedema. Liquid paraffin BP may slow gastric absorption. Gastric lavage should only be undertaken after endotracheal intubation.



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5. FIRE FIGHTING MEASURES

Specific hazards: Flammable liquid. May form flammable vapour mixtures with air. Flameproof equipment necessary in area where this chemical is being used. Nearby equipment must be earthed. Electrical requirements for work area should be assessed according to AS3000. Vapour may travel a considerable distance to source of ignition and flash back. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.

Fire fighting further advice: Heating can cause expansion or decomposition leading to violent rupture of containers. If safe to do so, remove containers from path of fire. Keep containers cool with water spray. On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

Hazchem Code: 3[Y]E.

Suitable extinguishing media: If material is involved in a fire use foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS

Shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 14

7. HANDLING AND STORAGE

Handling: Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

This material is classified as a Dangerous Good Class 3 Flammable Liquid as per the criteria of the Australian Dangerous Goods Code and must be stored in accordance with the relevant regulations. This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations.



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

No value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC Australia).

However for:

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m ³	ppm	mg/m ³		
Toluene	100	377	150	565	-	Sk
Acetone	500	1,190	1,000	2,380	-	-
n-Hexane*	50	176	-	-	-	-
Formaldehyde, p-tert-butylphenol polymer#	-	15	-	-	-	-

As published by the National Occupational Health & Safety Commission (NOHSC Australia).

* Expected components in the ingredient "Naphtha (petroleum), hydrotreated heavy"

OSHA recommendation.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

'Sk' Notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances [NOHSC: 1005 (1994)]" the ingredients in this material do not have a Biological Limit Allocated.

Engineering measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.

Personal protection equipment: OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, RESPIRATOR.

Wear overalls, chemical goggles and impervious gloves. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from polyvinyl alcohol (PVA) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.



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9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid gel
COLOR:	Pale yellow
ODOR:	solvent odour
SPECIFIC GRAVITY:	0.83 at 20 °C
pH:	N App
VAPOR PRESSURE (mm Hg):	2.93 kPa*, 24 kPa# at 20 °C
RELATIVE VAPOR DENSITY:	3.14*, 2# (air=1)
SOLUBILITY:	Insoluble in water
FLASH POINT (°C):	4.4*, -17.8#
FLAMMABILITY LIMITS (%):	LEL – 1, UEL – 8 (approx)
AUTOIGNITION TEMPERATURE (°C):	536*
MELTING POINT/RANGE (°C):	-95*, -94.7#
BOILING POINT/RANGE (°C):	110.7*, 56#

* values for toluene, # values for acetone
(Typical values only - consult specification sheet)
N Av = Not available N App = Not applicable

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: This material is thermally stable when stored and used as directed.

CONDITIONS TO AVOID: Source of ignition.

INCOMPATIBLE MATERIALS: Oxidising agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and nitrogen, smoke and other toxic fumes.

HAZARDOUS REACTIONS: No information available.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Harmful by inhalation. Vapour may be irritant to mucous membranes and respiratory tract. Inhalation of vapour can result in headaches, dizziness and possible nausea. Inhalation of high concentrations can produce central nervous system depression, which can lead to loss of co-ordination, impaired judgment and, if exposure is prolonged, unconsciousness.

Skin contact: Contact with skin may result in irritation. Will have a degreasing action on the skin. Repeated or prolonged skin contact may lead to irritant contact dermatitis. A skin sensitiser. Repeated or



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prolonged skin contact may lead to allergic contact dermatitis. Some components of this material can be absorbed through the skin with resultant toxic effects.

Eye contact: An eye irritant.

Ingestion: Swallowing can result in nausea, vomiting and central nervous system depression. If the victim is uncoordinated there is a greater likelihood of vomit entering the lungs and causing subsequent complications.

Long Term Effects: No information available for product. . However, for the constituent:

Toluene:

Evidence indicates that repeated or prolonged exposure to this chemical could result in liver and kidney damage. Excessive exposure can also result in central nervous system damage.

Acute toxicity / Chronic toxicity

No LD50 data available for the product. However, for the constituent:

Toluene:

Oral LD50 (rat):	636 mg/kg
Dermal LD50 (rabbit):	14,100 uL/kg
SKIN: (Draize):	Mild to moderate irritant
EYES: (Draize):	Mild to moderate irritant

The major effects in humans following acute exposure to high concentrations (such as in deliberate sniffing or industrial accidents) are central nervous system dysfunction and narcosis. Under controlled conditions, inhalation of 50, 75 or 100 ppm of toluene for 4 to 6 hours was associated with headache and irritation. There are also numerous reports of altered central nervous system performance among humans inhaling 40 ppm to more than 100 ppm. Both bioassay tests and other available data (including two human studies) indicate that toluene is not carcinogenic.

Based on available in-vivo data, studies of humans are inconclusive with regard to genotoxicity, while most in-vitro studies indicate negative results for toluene.

While there have been some reported developmental effects in experimental animal testing involving toluene, studies do not provide evidence that toluene is teratogenic following inhalation.

Acetone

Oral LD50 (rat):	5,800-8,393 mg/kg.
Dermal LD50 (rabbit):	>15,688 (no deaths recorded).
Inhalation LC50 (rat):	50.1 mg/l/8 hr.
Inhalation LC50 (rat):	76.0 mg/l/4 hr.
EYES (rabbit):	Redness of conjunctiva - 2.3

100uL of acetone was applied to six New Zealand white albino rabbits according to a modified draize test. Overall the results show that acetone is a mild eye irritant.

Subjects exposed to vapour concentrations of 500-1000 ppm experienced irritation to the eyes.

Vapour concentrations above 500 ppm are irritating to the nose and throat. Higher concentrations above 1000 ppm have resulted in narcotic effects.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Ecotoxicity: No information available. However, for the constituent:



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Toluene

Material is moderately toxic to aquatic organisms
LC50 between 1 and 10 mg/L in most sensitive species.
LC50 (Daphnia magna): 60-313 mg/L.

Persistence and degradability: No information available.

Mobility: No information available.

13. DISPOSAL

Dispose strictly in accordance with local industrial waste disposal and environmental protection regulation.

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

UN No: 1133

Dangerous Goods Class: 3

Packing Group: II

Hazchem Code: 3[Y]E

Emergency Response Guide No: 14

Proper Shipping Name: FLAMMABLE LIQUID N.O.S. (contains TOLUENE)

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), if both are in bulk, toxic gases (Class 2.3), spontaneously combustible substances (Class 4.2), oxidising agents (Class 5.1), organic peroxides (Class 5.2) or radioactive substances (Class 7), however exemptions may apply.

MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No: 1133

Dangerous Goods Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID N.O.S. (contains TOLUENE)

AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 1133

Dangerous Goods Class: 3

Packing Group: II

Proper Shipping Name: FLAMMABLE LIQUID N.O.S. (contains TOLUENE)

15. REGULATORY INFORMATION

Poisons Schedule (Aust): S5

All components of this material are registered with Nicnas and appear on the AICS.



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16. OTHER INFORMATION

Contact point: Technical Manager (03) 9797 6222

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular, how to safely handle and use the product in the workplace. Since H.B. Fuller Company Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for the products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.