

KF2 Part A

Stanley Black & Decker Australia Pty Ltd (Powers)

Chemwatch Hazard Alert Code: 2

Chemwatch: 52-8915

Issue Date: 12/08/2015

Version No: 2.1.1.1

Print Date: 17/08/2015

Safety Data Sheet according to WHS and ADG requirements

Initial Date: Not Available

S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	KF2 Part A
Synonyms	Not Available
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Adhesive mortar for fastening elements A-component (resin).
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Details of the manufacturer/importer

Registered company name	Stanley Black & Decker Australia Pty Ltd (Powers)
Address	Factory 3, 205 Abbotts Road Dandenong South 3175 VIC Australia
Telephone	+61 3 8795 4600
Fax	+61 3 8787 5899
Website	http://www.powers.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1800 039 008
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
GHS Classification ^[1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

GHS label elements	
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SIGNAL WORD WARNING

Hazard statement(s)

H315	Causes skin irritation
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Continued...

KF2 Part A

H319	Causes serious eye irritation
H317	May cause an allergic skin reaction

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P362	Take off contaminated clothing.
P363	Wash contaminated clothing before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
14808-60-7	40-80	<u>silica crystalline - quartz</u>
868-77-9	10-20	<u>2-hydroxyethyl methacrylate</u>
25013-15-4	1-10	<u>vinyltoluene</u>
3077-12-1	1-5	<u>2,2'-[(4-methylphenyl)]imino]bisethanol</u>

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: - Wash out immediately with fresh running water. - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. - Seek medical attention without delay; if pain persists or recurs seek medical attention. - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: - Immediately remove all contaminated clothing, including footwear. - Flush skin and hair with running water (and soap if available). - Seek medical attention in event of irritation.
Inhalation	- If fumes, aerosols or combustion products are inhaled remove from contaminated area. - Other measures are usually unnecessary.
Ingestion	- If swallowed do NOT induce vomiting. - If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. - Observe the patient carefully. - Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. - Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. - Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Continued...

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

- | | |
|-----------------------------|--|
| Fire Incompatibility | <ul style="list-style-type: none"> ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

Advice for firefighters

- | | |
|------------------------------|--|
| Fire Fighting | <ul style="list-style-type: none"> ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Wear breathing apparatus plus protective gloves in the event of a fire. ▸ Prevent, by any means available, spillage from entering drains or water courses. ▸ Use fire fighting procedures suitable for surrounding area. ▸ DO NOT approach containers suspected to be hot. ▸ Cool fire exposed containers with water spray from a protected location. ▸ If safe to do so, remove containers from path of fire. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▸ The material is not readily combustible under normal conditions. ▸ However, it will break down under fire conditions and the organic component may burn. ▸ Not considered to be a significant fire risk. ▸ Heat may cause expansion or decomposition with violent rupture of containers. ▸ Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). ▸ May emit acrid smoke. <p>Decomposes on heating and produces toxic fumes of; carbon dioxide (CO₂) nitrogen oxides (NO_x) other pyrolysis products typical of burning organic material</p> |

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- | | |
|---------------------|--|
| Minor Spills | <ul style="list-style-type: none"> ▸ Clean up all spills immediately. ▸ Avoid contact with skin and eyes. ▸ Wear impervious gloves and safety goggles. ▸ Trowel up/scrape up. ▸ Place spilled material in clean, dry, sealed container. ▸ Flush spill area with water. |
| Major Spills | <p>Minor hazard.</p> <ul style="list-style-type: none"> ▸ Clear area of personnel. ▸ Alert Fire Brigade and tell them location and nature of hazard. ▸ Control personal contact with the substance, by using protective equipment as required. ▸ Prevent spillage from entering drains or water ways. ▸ Contain spill with sand, earth or vermiculite. ▸ Collect recoverable product into labelled containers for recycling. |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

- | | |
|--------------------------|---|
| Safe handling | <p>Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.</p> <ul style="list-style-type: none"> ▸ Avoid all personal contact, including inhalation. ▸ Wear protective clothing when risk of exposure occurs. ▸ Use in a well-ventilated area. ▸ Prevent concentration in hollows and sumps. ▸ DO NOT enter confined spaces until atmosphere has been checked. |
| Other information | <ul style="list-style-type: none"> ▸ Store in original containers. ▸ Keep containers securely sealed. ▸ Store in a cool, dry, well-ventilated area. ▸ Store away from incompatible materials and foodstuff containers. ▸ Protect containers against physical damage and check regularly for leaks. |

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- ▶ Observe manufacturer's storage and handling recommendations contained within this MSDS.
- ▶ Recommended storage temperature: 5 - 25 deg C.

Conditions for safe storage, including any incompatibilities

Suitable container	▶ Polyethylene or polypropylene container. ▶ Packing as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	▶ Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	silica crystalline - quartz	Silica - Crystalline Quartz (respirable dust) / Quartz (respirable dust)	0.1 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	vinyltoluene	Vinyl toluene	242 mg/m3 / 50 ppm	483 mg/m3 / 100 ppm	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
silica crystalline - quartz	Silica, crystalline-quartz; (Silicon dioxide)	0.025 mg/m3	0.025 mg/m3	0.025 mg/m3
2-hydroxyethyl methacrylate	Hydroxyethyl methacrylate, 2-	0.71 mg/m3	7.8 mg/m3	1000 mg/m3

Ingredient	Original IDLH	Revised IDLH
silica crystalline - quartz	N.E. mg/m3 / N.E. ppm	50 mg/m3
2-hydroxyethyl methacrylate	Not Available	Not Available
vinyltoluene	5,000 ppm	400 ppm
2,2'-[(4-methylphenyl)]imino]bisethanol	Not Available	Not Available

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.
Personal protection	
Eye and face protection	▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.
Skin protection	See Hand protection below
Hands/feet protection	▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber NOTE: ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and

Continued...

KF2 Part A

	▶ other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▶ Overalls. ▶ P.V.C. apron. ▶ Barrier cream. ▶ Skin cleansing cream. ▶ Eye wash unit.
Thermal hazards	Not Available

Respiratory protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Light beige paste with a characteristic odour; partially miscible in water.		
Physical state	Free-flowing Paste	Relative density (Water = 1)	1.57
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	45	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	0.9	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Partly miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Continued...

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

KF2 Part A	TOXICITY	IRRITATION
	Not Available	Not Available
silica crystalline - quartz	TOXICITY	IRRITATION
	Not Available	Nil reported
2-hydroxyethyl methacrylate	TOXICITY	IRRITATION
	Dermal (rabbit) LD50: >3000 mg/kg ^[1]	* Rohm & Haas
	Oral (rat) LD50: >4000 mg/kg ^[1]	Eye (rabbit): SEVERE *
		post-exposure
vinyltoluene	TOXICITY	IRRITATION
	Inhalation (mouse) LC50: 29.5 mg/L/4H ^[2]	Eye (rabbit): 90 mg - mild
	Inhalation (mouse) LC50: 3.02 mg/L/4H ^[2]	Skin (rabbit): 100% moderate
	Oral (rat) LD50: 2255 mg/kg ^[2]	
2,2'-[(4-methylphenyl)]imino]bisethanol	TOXICITY	IRRITATION
	Not Available	Not Available

Legend: 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

SILICA CRYSTALLINE - QUARTZ	WARNING: For inhalation exposure <u>ONLY</u>: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS The International Agency for Research on Cancer (IARC) has classified occupational exposures to respirable (<5 µm) crystalline silica as being carcinogenic to humans. This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours. * Millions of particles per cubic foot (based on impinger samples counted by light field techniques). NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.
2-HYDROXYETHYL METHACRYLATE	Dermal (rabbit): >5000 mg/kg* Effects persist beyond 21 days
VINYLTOLUENE	No significant acute toxicological data identified in literature search. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Olfaction and eye effects recorded

Continued...

**2-HYDROXYETHYL METHACRYLATE &
2,2'-[(4-METHYLPHENYL)]IMINO]BIETHANOL**

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

Acute Toxicity	⊘	Carcinogenicity	⊘
Skin Irritation/Corrosion	✓	Reproductivity	⊘
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	⊘
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	⊘
Mutagenicity	⊘	Aspiration Hazard	⊘

Legend: ✓ – Data required to make classification available
✗ – Data available but does not fill the criteria for classification
⊘ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2-hydroxyethyl methacrylate	LOW	LOW
2,2'-[(4-methylphenyl)]imino]bisethanol	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
2-hydroxyethyl methacrylate	LOW (BCF = 1.54)
vinyltoluene	LOW (BCF = 110)
2,2'-[(4-methylphenyl)]imino]bisethanol	LOW (LogKOW = 1.09)

Mobility in soil

Ingredient	Mobility
2-hydroxyethyl methacrylate	HIGH (KOC = 1.043)
2,2'-[(4-methylphenyl)]imino]bisethanol	LOW (KOC = 10)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	▶ Recycle wherever possible or consult manufacturer for recycling options. ▶ Consult State Land Waste Authority for disposal. ▶ Bury or incinerate residue at an approved site. ▶ Recycle containers if possible, or dispose of in an authorised landfill.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Continued...

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL 73 / 78 and the IBC code

Source	Ingredient	Pollution Category
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk	vinyltoluene	Y

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

SILICA CRYSTALLINE - QUARTZ(14808-60-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

2-HYDROXYETHYL METHACRYLATE(868-77-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Substances Information System - Consolidated Lists	Australia Inventory of Chemical Substances (AICS)
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VINYLTOLUENE(25013-15-4) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Australia Hazardous Substances Information System - Consolidated Lists	International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft
Australia Inventory of Chemical Substances (AICS)	

2,2'-[(4-METHYLPHENYL)]IMINO]BISETHANOL(3077-12-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (silica crystalline - quartz; vinyltoluene; 2,2'-[(4-methylphenyl)]imino]bisethanol; 2-hydroxyethyl methacrylate)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
silica crystalline - quartz	122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 14808-60-7, 70594-95-5, 87347-84-0
vinyltoluene	1321-45-5, 25013-15-4

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

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The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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TEL (+61 3) 9572 4700.

KF2 Part B

Stanley Black & Decker Australia Pty Ltd (Powers)

Chemwatch: 52-9320

Version No: 2.1.1.1

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 12/08/2015

Print Date: 13/08/2015

Initial Date: Not Available

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SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	KF2 Part B
Synonyms	Not Available
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Adhesive mortar for fastening elements B-component (hardener).
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Details of the manufacturer/importer

Registered company name	Stanley Black & Decker Australia Pty Ltd (Powers)
Address	Factory 3, 205 Abbots Road Dandenong South 3175 VIC Australia
Telephone	+61 3 8795 4600
Fax	+61 3 8787 5899
Website	http://www.powers.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	1800 039 008
Other emergency telephone numbers	Not Available

CHEMWATCH EMERGENCY RESPONSE

Primary Number	Alternative Number 1	Alternative Number 2
1800 039 008	+612 9186 1132	Not Available

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the Model WHS Regulations and the ADG Code.

Poisons Schedule	Not Applicable
GHS Classification ^[1]	Eye Irritation Category 2A, Skin Sensitizer Category 1
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

Continued...

GHS label elements



SIGNAL WORD WARNING

Hazard statement(s)

H319	Causes serious eye irritation
H317	May cause an allergic skin reaction

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P363	Wash contaminated clothing before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water and soap
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

Precautionary statement(s) Disposal

P501	Dispose of contents/container to authorised chemical landfill or if organic to high temperature incineration
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
14808-60-7	40-<60	<u>silica crystalline - quartz</u>
94-36-0	10-<20	<u>dibenzoyl peroxide</u>
56-81-5	1-<20	<u>glycerol</u>
Not Available	<5	reaction mass of diethylene glycol dibenzoate, dipropylene glycol dibenzoate and triethylene glycol dibenzoate
5444-75-7	<5	<u>2-ethylhexylbenzoate</u>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: - Wash out immediately with fresh running water. - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. - Seek medical attention without delay; if pain persists or recurs seek medical attention. - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: - Immediately remove all contaminated clothing, including footwear. - Flush skin and hair with running water (and soap if available). - Seek medical attention in event of irritation.

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Inhalation	▶ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▶ Other measures are usually unnecessary.
Ingestion	▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

	▶ Foam. ▶ Dry chemical powder. ▶ BCF (where regulations permit). ▶ Carbon dioxide. ▶ Water spray or fog - Large fires only.
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Special hazards arising from the substrate or mixture

Fire Incompatibility	▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
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Advice for firefighters

Fire Fighting	▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water courses. ▶ Use water delivered as a fine spray to control fire and cool adjacent area. ▶ DO NOT approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	▶ Combustible. ▶ Slight fire hazard when exposed to heat or flame. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). ▶ May emit acrid smoke. ▶ Mists containing combustible materials may be explosive. Combustion products include; carbon dioxide (CO₂) other pyrolysis products typical of burning organic material

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills	▶ Clean up all spills immediately. ▶ Avoid contact with skin and eyes. ▶ Wear impervious gloves and safety goggles. ▶ Trowel up/scrape up. ▶ Place spilled material in clean, dry, sealed container. ▶ Flush spill area with water.
Major Spills	Minor hazard. ▶ Clear area of personnel. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Control personal contact with the substance, by using protective equipment as required. ▶ Prevent spillage from entering drains or water ways. ▶ Contain spill with sand, earth or vermiculite. ▶ Collect recoverable product into labelled containers for recycling.
Personal Protective Equipment advice is contained in Section 8 of the SDS.	

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Continued...

KF2 Part B

Safe handling	▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ DO NOT allow material to contact humans, exposed food or food utensils. ▶ Avoid contact with incompatible materials.
Other information	▶ Store in original containers. ▶ Keep containers securely sealed. ▶ Store in a cool, dry, well-ventilated area. ▶ Store away from incompatible materials and foodstuff containers. ▶ Protect containers against physical damage and check regularly for leaks. ▶ Observe manufacturer's storage and handling recommendations contained within this MSDS. [Recommended storage temperature: 5 - 25 deg C.

Conditions for safe storage, including any incompatibilities

Suitable container	▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	For benzoyl peroxide: ▶ Avoid reaction with acids, alkalis, oxidising and reducing agents, metals and metal oxides, and combustible materials. ▶ Amines and solutions of cobalt salts used as promoters and accelerators in polyester compounds if mixed with benzoyl peroxide will cause spontaneous decomposition (detonation). ▶ Alkalis cause rapid decomposition of benzoyl peroxide with generation of large volumes of carbon dioxide gas (CO₂) and may pressurise containers. ▶ Avoid contact with copper, brass, lead and zinc. ▶ Confined storage of the dry chemical may lead to decomposition and explosion. ▶ Extremely reactive oxidiser. ▶ An explosive that is sensitive to friction, shock, and heat.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	silica crystalline - quartz	Silica - Crystalline Quartz (respirable dust) / Quartz (respirable dust)	0.1 mg/m ³	Not Available	Not Available	Not Available
Australia Exposure Standards	dibenzoyl peroxide	Benzoyl peroxide	5 mg/m ³	Not Available	Not Available	Not Available
Australia Exposure Standards	glycerol	Glycerin mist (a)	10 mg/m ³	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
silica crystalline - quartz	Silica, crystalline-quartz; (Silicon dioxide)	0.025 mg/m ³	0.025 mg/m ³	0.025 mg/m ³
dibenzoyl peroxide	Benzoyl peroxide	15 mg/m ³	1200 mg/m ³	7000 mg/m ³
glycerol	Glycerine (mist); (Glycerol; Glycerin)	30 mg/m ³	310 mg/m ³	2500 mg/m ³

Ingredient	Original IDLH	Revised IDLH
silica crystalline - quartz	N.E. mg/m ³ / N.E. ppm	50 mg/m ³
dibenzoyl peroxide	7,000 mg/m ³	1,500 mg/m ³
glycerol	Not Available	Not Available
reaction mass of diethylene glycol dibenzoate, dipropylene glycol dibenzoate and triethylene glycol dibenzoate	Not Available	Not Available
2-ethylhexylbenzoate	Not Available	Not Available

Exposure controls

Continued...

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.
Personal protection	
Eye and face protection	▶ Safety glasses with side shields. ▶ Chemical goggles. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable.
Skin protection	See Hand protection below
Hands/feet protection	▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber NOTE: ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▶ Overalls. ▶ P.V.C. apron. ▶ Barrier cream. ▶ Skin cleansing cream. ▶ Eye wash unit.
Thermal hazards	Not Available

Respiratory protection

Type AX-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Black paste with a characteristic odour; insoluble in water.		
Physical state	Free-flowing Paste	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	116	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available

Continued...

Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.	
Ingestion	Considered an unlikely route of entry in commercial/industrial environments Ingestion of organic peroxides may produce nausea, vomiting, abnormal pain, stupor, bluish discoloration of skin and mucous membranes. Inflammation of the heart muscle may also occur.	
Skin Contact	There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. All organic peroxides are irritating to the skin and if allowed to remain on the skin, may produce inflammation; some are allergenic. Open cuts, abraded or irritated skin should not be exposed to this material	
Eye	This material can cause eye irritation and damage in some persons.	
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Prolonged or repeated skin contact with benzoyl peroxide may result in allergic skin reactions even at diluted concentrations. Ingestion results in abdominal pain, low body oxygen and severe depression. Chronic effects of exposure include allergic reactions characterised by redness, itching, oozing, crusting, and scaling of the skin and asthmatic wheezing. Although it does not exhibit complete carcinogenic or tumour-initiating activity, it has been associated with certain tumours of like papillomas and squamous cell carcinomas. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.	
KF2 Part B	TOXICITY	IRRITATION
	Not Available	Not Available
silica crystalline - quartz	TOXICITY	IRRITATION
	Not Available	Nil reported
dibenzoyl peroxide	TOXICITY	IRRITATION
	dermal (mammal) LD50: >1000 mg/kg ^[2]	(@ 50%)
	Oral (rat) LD50: >950 mg/kg ^[1]	Eye (rabbit): 500 mg/24h - mild
		Skin effects (MAK): very weak
glycerol	TOXICITY	IRRITATION
	dermal (guinea pig) LD50: 54000 mg/kg ^[1]	Not Available
	Oral (rat) LD50: >20<39800 mg/kg> ^[1]	
2-ethylhexylbenzoate	TOXICITY	IRRITATION

Continued...

KF2 Part B

	Not Available	Not Available
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

SILICA CRYSTALLINE - QUARTZ	WARNING: For inhalation exposure <u>ONLY</u>: This substance has been classified by the IARC as Group 1: CARCINOGENIC TO HUMANS The International Agency for Research on Cancer (IARC) has classified occupational exposures to respirable (<5 um) crystalline silica as being carcinogenic to humans . This classification is based on what IARC considered sufficient evidence from epidemiological studies of humans for the carcinogenicity of inhaled silica in the forms of quartz and cristobalite. Crystalline silica is also known to cause silicosis, a non-cancerous lung disease. Intermittent exposure produces; focal fibrosis, (pneumoconiosis), cough, dyspnoea, liver tumours. * Millions of particles per cubic foot (based on impinger samples counted by light field techniques). NOTE : the physical nature of quartz in the product determines whether it is likely to present a chronic health problem. To be a hazard the material must enter the breathing zone as respirable particles.
DIBENZOYL PEROXIDE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.
GLYCEROL	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.
2-ETHYLHEXYLBENZOATE	No significant acute toxicological data identified in literature search.

Acute Toxicity	☐	Carcinogenicity	☐
Skin Irritation/Corrosion	☐	Reproductivity	☐
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	☐
Respiratory or Skin sensitisation	✓	STOT - Repeated Exposure	☐
Mutagenicity	☐	Aspiration Hazard	☐

Legend: ✓ – Data required to make classification available
✗ – Data available but does not fill the criteria for classification
☐ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
dibenzoyl peroxide	LOW (Half-life = 14 days)	LOW (Half-life = 21.25 days)
glycerol	LOW	LOW

Continued...

KF2 Part B

2-ethylhexylbenzoate LOW

LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
dibenzoyl peroxide	LOW (LogKOW = 3.46)
glycerol	LOW (LogKOW = -1.76)
2-ethylhexylbenzoate	HIGH (LogKOW = 5.1924)

Mobility in soil

Ingredient	Mobility
dibenzoyl peroxide	LOW (KOC = 771)
glycerol	HIGH (KOC = 1)
2-ethylhexylbenzoate	LOW (KOC = 5178)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	
	- Recycle wherever possible or consult manufacturer for recycling options. - Consult State Land Waste Authority for disposal. - Bury or incinerate residue at an approved site. - Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

SILICA CRYSTALLINE - QUARTZ(14808-60-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

DIBENZOYL PEROXIDE(94-36-0) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
Australia Hazardous Substances Information System - Consolidated Lists	International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft
Australia Inventory of Chemical Substances (AICS)	

GLYCEROL(56-81-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards	Australia Inventory of Chemical Substances (AICS)
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2-ETHYLHEXYLBENZOATE(5444-75-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Not Applicable

National Inventory	Status
Australia - AICS	N (2-ethylhexylbenzoate)
Canada - DSL	Y
Canada - NDSL	N (dibenzoyl peroxide; glycerol; silica crystalline - quartz; 2-ethylhexylbenzoate)
China - IECSC	Y

Continued...

Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	N (2-ethylhexylbenzoate)
New Zealand - NZIoC	Y
Philippines - PICCS	N (2-ethylhexylbenzoate)
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
silica crystalline - quartz	122304-48-7, 122304-49-8, 12425-26-2, 1317-79-9, 14808-60-7, 70594-95-5, 87347-84-0
glycerol	29796-42-7, 30049-52-6, 37228-54-9, 56-81-5, 75398-78-6, 78630-16-7, 8013-25-0

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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