

Section 1 – Identification of Chemical Product and Company

| Code | Description | Size | Colour |
|-------|-----------------------------------------|--------|-------------|
| 23103 | Holdfast SB Power Construction Adhesive | 375 ml | Light Brown |

| | | |
|------------------------------------------------------|-----------------|-----------------------------------------------------------------|
| Recommended use: | | Adhesive |
| Supplier contact details: | Soudal Ltd | Freephone: 0800 70 10 80 |
| | 14 Avalon Drive | Phone: (07) 847 5540 |
| | Nawton | Fax: (07) 847 0324 |
| | Hamilton 3200 | Email: sales@soudal.co.nz |
| | New Zealand | Website: www.soudal.co.nz |
| POISON CENTRE NUMBER: 0800 764 766 (24 hours) | | |

Section 2 – Hazard Identification

Statement of Hazardous Nature

This product is classified as:

HAZARDOUS SUBSTANCE according to the criteria of HSNO.

REGULATED under NZS5433:2007 Transport of Dangerous Goods on Land

Hazardous Substances and New Organisms (HSNO) classification:

| Classification | Hazard statements |
|------------------------------------------------------|------------------------------------------------------------------------|
| Flammable Liquid Category 2 3.1B | H225 Highly flammable liquid and vapour |
| Skin Effects Category 3 6.3B | H316 Causes mild skin irritation |
| STOT – SE Category 1 6.9A | H370 Causes damage to organs |
| STOT – RE Category 1 6.9A | H372 Causes damage to organs through prolonged or repeated exposure |
| Chronic Aquatic Hazard Category 3 9.1C | H412 Harmful to aquatic life with long lasting effects |

HSNO Signal Word: **DANGER**



Precautionary Statements:

Read label before use.
 Keep out of reach of children.
 Ensure all safety directions are read and understood before use
 Keep away from heat, sparks, open flames and hot surfaces
 No smoking
 Keep container tightly closed
 Ground/ bond container and receiving equipment
 Use explosion proof electrical, ventilation, lighting equipment

Use only non-sparking tools
 Take precautionary measures against static discharge
 Do not breathe fumes/ mists/ vapours/ dusts
 Wear protective gloves/ protective clothing/ eye protection/ face protection and respiratory protection
 Store locked up
 Store in a well ventilated place. Keep cool
 Avoid release to the environment

Section 3 - Composition/Information on Ingredients

| Ingredient | CAS No. | Individual HSNO classification | Concentration (% by Wt.) |
|-------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Cyclohexane | 110-82-7 | Flammable Liquid Category 2; Acute Oral Toxicity Category 4; Acute Inhalation Toxicity Category 4; Skin Effects Category 3; Chronic Aquatic Hazard Category 2; Vertebrate Hazard Category 3 | 5 – 10 |
| Methylcyclohexane | 108-87-2 | Flammable Liquid Category 2; Acute Oral Toxicity Category 5; Skin Effects Category 3; Eye Effects Category 2; Chronic Aquatic Hazard Category 4 | 1 - 5 |
| n-hexane | 110-54-3 | Flammable Liquid Category 2; Acute Oral Toxicity Category 5; Skin Effects Category 3; Eye Effects Category 2; STOT – SE Category 1; STOT – RE Category 1; Chronic Aquatic Hazard Category 2 | 1 – 3 |

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

Section 4 – First Aid Measures

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Eye contact:

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 or hair contact:

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 or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.

Ingestion:

Immediately give a glass of water.

First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

General advice and advice for physicians:

Treat symptomatically.

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764766 from anywhere in New Zealand (13 1126 in Australia) and is available at all times. Have this SDS or product label with you when you call.

Section 5 - Fire-Fighting Measures

Extinguishing media:

Foam, Carbon Dioxide, Dry Powder, water fog

Fire/ Explosion Hazard

Liquid and vapour are highly flammable. Severe fire hazard when exposed to heat, flame and/or oxidisers. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).

Advice for fire-fighters:

Alert Fire & Emergency New Zealand and tell them location and nature of hazard. May be violently or explosively reactive. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). Fight fire from a safe distance, with adequate cover. If safe, switch off electrical equipment until vapour fire hazard removed. Use water delivered as a fine spray to control the fire and cool adjacent area. Avoid spraying water onto liquid pools. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

Section 6 - Accidental Release Measures

Minor Spills

Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb small quantities with vermiculite or other absorbent material. Wipe up. Collect residues in a flammable waste container

Major Spills:

Clear area of personnel. Alert Fire & Emergency New Zealand 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. Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal. Wash area and prevent runoff into drains or waterways. If contamination of drains or waterways occurs, advise emergency services.

Section 7 - Handling and Storage

Handling:

Containers, even those that have been emptied, may contain explosive vapours. Do NOT cut, drill, grind, weld or perform similar operations on or near containers. 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. Avoid smoking, naked lights, heat or ignition sources. When handling, DO NOT eat, drink or smoke. Vapour may ignite on pumping or pouring due to static electricity. DO NOT use plastic buckets. Earth and secure metal containers when dispensing or pouring product. Use spark-free tools when handling. Avoid contact with incompatible materials. Keep containers securely sealed. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. DO NOT allow clothing wet with material to stay in contact with skin

Storage:

Store in original containers in approved flame-proof area. No smoking, naked lights, heat or ignition sources. DO NOT store in pits, depressions, basements or areas where vapours may be trapped. Keep containers securely sealed. Store away from incompatible materials in a cool, dry well ventilated area. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Section 8 - Exposure Controls/Personal Protection

Exposure limits:

| CAS no. | Substance or ingredient | WES-TWA | | WES-STEL | |
|----------|-------------------------|------------------------|---------|------------------------|---------|
| 110-82-7 | Cyclohexane | 360 mg/m ³ | 100 ppm | 1050 mg/m ³ | 300 ppm |
| 108-87-2 | Methylcyclohexane | 1610 mg/m ³ | 400 ppm | | |
| 110-54-3 | Hexane | 72 mg/m ³ | 20 ppm | | |




The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

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. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Exposure controls:

| Control | Protective measure |
|---------|--------------------|
| | |

| | | |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Eye | 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. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] |  |
| Respiratory | Type A organic vapour is recommended (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent) |  |
| Skin | Wear chemical protective gloves, e.g. PE/EVAL/PE or Viton. 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. |  |

Section 9 - Physical and Chemical Properties

General substance properties:

| Property | Details |
|-------------------------------------|----------------------------------------------|
| Appearance | Brown paste |
| Odour | Hydrocarbon solvent |
| pH | No data. |
| Vapour pressure | No data |
| Vapour Density | > 1 heavier than air |
| Viscosity | Paste |
| Boiling Point | 70 - 114 °C |
| Volatile materials | 30 % |
| Water solubility | immiscible |
| Freezing/melting point | No data. |
| Solubility | Immiscible |
| Specific gravity/density | 1.14 g/ml |
| Flash point | - 15 °C |
| Auto-ignition temperature | No Data |
| Upper and lower flammability limits | Lower 1.1 % Upper 7.5 % |
| Corrosiveness | No data. |

Section 10 - Stability and Reactivity

Stability:

Stable under normal conditions.

Conditions to avoid:

Avoid heat, sparks, flames and any other sources of ignition.

Incompatible materials to avoid:

Avoid oxidising agents (nitrates, oxidising acids, chlorine bleaches, pool chlorine etc) as ignition may result

Hazardous decomposition products:

Combustion will result in the release of carbon monoxide; carbon dioxide and other toxic vapours

Section 11 - Toxicological Information

Acute toxicity:

| Test | Data and symptoms of exposure |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled | There is strong evidence to suggest that this material can cause, if inhaled once, very serious, irreversible damage of organs. 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. Rabbits survived 8-hour exposures to cyclohexane at 18500 ppm but 26600 ppm was lethal after 1 hour exposure. A concentration of 12600 ppm produced severe weakness, unconsciousness, increased breathing and convulsions while 3330 ppm failed to elicit an effect. 300 ppm is reported to be irritating to human eyes and mucous membranes. There is strong evidence to suggest that this material can cause, if swallowed once, very serious, irreversible damage of organs. There is strong evidence to suggest that this material, on a single contact with skin, can cause very serious, irreversible damage of organs. |
| Oral | There is strong evidence to suggest that this material can cause, if swallowed once, very serious, irreversible damage of organs. 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. Chronic inhalation or skin exposure to n-hexane may cause damage to nerve ends in extremities, e.g. finger, toes with loss of sensation. |
| Dermal | This material can cause inflammation of the skin on contact in some persons. There is strong evidence to suggest that this material, on a single contact with skin, can cause very serious, irreversible damage of organs. The material may accentuate any pre-existing dermatitis condition. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. |
| Eye | Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn). |
| Chronic | Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless, exposure by all routes should be minimised as a matter of course. Chronic inhalation or skin exposure to n-hexane may cause damage to nerve ends in extremities, e.g. finger, toes with loss of sensation. |

| | Oral LD ₅₀ mg/m ³ | Dermal LD ₅₀ mg/m ³ | Inhalation LC ₅₀ mg/L |
|-------------------|-----------------------------------------|-------------------------------------------|----------------------------------|
| Cyclohexane | > 5000 | > 2000 | > 9489.1 /4hr |
| Methylcyclohexane | > 3200 | | 18.45 / 2hr |
| Hexane | 15840 | 3000 | 47945 / 4hr |

Section 12 - Ecological Information

Harmful to aquatic life with long lasting effects. Wastes resulting from use of the product must be disposed of on site or at approved waste sites. **Do NOT discharge to sewer or waterway**

| | Fish mg/L | Crustacea mg/L | Algae mg/L |
|-------------------|------------------------|------------------------|------------------------------------------------------------|
| Cyclohexane | LC ₅₀ 1,967 | EC ₅₀ 0.9 | EC ₅₀ 2.17 EC ₂₀ 28 NOEC 0.952 |
| Methylcyclohexane | LC ₅₀ 1.152 | EC ₅₀ 0.326 | EC ₅₀ 0.134 NOEC 0.022 |
| Hexane | LC ₅₀ 1.674 | EC ₅₀ 21.84 | EC ₅₀ 3.089 |

| | Persistence H ₂ O/ Soil | Persistence Air | Bioaccumulation | Mobility |
|-------------------|---------------------------------------|--------------------|-----------------|----------|
| Cyclohexane | HIGH | LOW | LOW | LOW |
| Methylcyclohexane | LOW | LOW | LOW | LOW |
| Hexane | LOW | LOW | MEDIUM | LOW |

Section 13 - Disposal Considerations

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled. The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. Only dispose to the environment if a tolerable exposure limit has been set for the substance. Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

Section 14 - Transport Information



HAZCHEM 3[Y]E

Land Transport UNDG

Class or division 3
 Subsidiary Risk None
 UN Number **1133**
 UN Packing Group II
 Shipping Name **Adhesives** containing flammable liquid
 Special Provisions
 Limited Quantities 5 L

Air Transport IATA

ICAO/IATA Class 3
 ICAO/IATA Subrisk None
 UN/ID Number **1133**
 Packing Group II
 Special provision A3
 Cargo only
 Packing instructions 364
 Maximum Qty/pack 60 L
 Passenger and Cargo
 Packing instructions 353
 Maximum Qty/pack 5 L
 Passenger & Cargo Limited Quantity
 Packing instructions Y341
 Maximum Qty/pack 1 L
 Shipping Name **Adhesives** containing flammable liquid

Marine Transport IMDG

IMDG Class 3
 IMDG Subrisk None
 UN Number **1133**
 UN Packing Group II
 EmS Number F-E, S-D
 Special provisions
 Limited quantities 5 L
 Marine pollutant Yes

Shipping Name **Adhesives** containing flammable liquid

Section 15 - Regulatory Information

HSNO approval number and Group Standard:

HSR002662 Surface Coatings & Colourants (Flammable)

Group Standard conditions and other regulations:

| Condition | Requirement |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDS | Safety data sheet must be available to a person handling the substance within 10 minutes. |
| Emergency plan | Required when quantities exceed 500Lt |
| Certified handler | Not required |
| Tracking | Not applicable |
| Bunding and secondary containment | Secondary containment is required based on pack size and total volume |
| Signage | Required when present in quantity 250 L. |
| Compliance certificate | Required when storing quantities exceeding 100Lt in closed containers of greater than 5Lt capacity, or exceeding 250Lt in closed containers of less than 5Lt capacity or in quantities exceeding 250Lt or when in open container quantities exceeding 50 Lt |
| Hazardous Atmosphere zone | required |
| Fire extinguisher | 2 required when quantities exceed 250 Lt |

National Inventories

| | | |
|-------------|--------|-----|
| Australia | AICS | Yes |
| Canada | DSL | Yes |
| Canada | NDSL | No |
| China | IESCS | Yes |
| Europe | EINECS | Yes |
| Japan | ENCS | Yes |
| Korea | KECI | Yes |
| New Zealand | NZIoC | Yes |
| Philippines | PICCS | Yes |
| USA | TSCA | Yes |

Section 16 - Other Information

Revision History

| | |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Feb 2019 | Product has been reformulated and this document has had all sections amended to bring it into line with the EPA Safety Datasheet Notice 2017 |
| May 2015 | reformatted |
| April 2015 | initial Preparation |

Abbreviations:

| Abbreviation | Description |
|-----------------------------|--------------------------------------------------------------------------------------|
| CAS number | Number assigned to chemical in the Chemical Abstracts Service registry |
| HAZCHEM code | Code used by fire-fighters to determine correct method of action in the case of fire |
| HSNO | Hazardous Substances and New Organisms (Act) |
| ICAO Technical Instructions | International Civil Aviation Organization Technical Instructions |

| | |
|------------------|---------------------------------------------------------------------------------------------------------|
| IMDG code | International Maritime Dangerous Goods code controlled by the International Maritime Organization (IMO) |
| LC ₅₀ | Lethal concentration 50% - concentration fatal to 50% of the tested population |
| LD ₅₀ | Lethal dose 50% - dose fatal to 50% of the tested population |
| NZS 5433 | New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land) |
| SDS | Safety data sheet |
| STEL | Short term exposure limit |
| TWA | Time weighted average (typically measured as 8 hours) |
| UN number | United nations number |
| WES | Workplace exposure standard |

References

Chemical properties and HSNO classifications derived from the New Zealand chemical classification information database (CCID), www.epa.govt.nz. Workplace exposure limits derived from Workplace Exposure Standards and Biological Exposure Indices 9th Edition.

The information provided on this SDS 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.

This SDS was prepared by Collievale Enterprises Ltd in accord with the Hazardous Substances (Safety Data Sheets) Notice 2017
<http://www.collievale.com> Phone +64 7 5432428

End of MSDS

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|---------------------------|-----------------|-----------------------------------------------------------------------|
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| | 14 Avalon Drive | Phone: (07) 847 5540 |
| | Nawton | Fax: (07) 847 0324 |
| | Hamilton 3200 | Email: sales@holdfast.co.nz |
| | New Zealand | Website: www.holdfast.co.nz |