

# Material Safety Data Sheet



Date of issue : 1 February 2009

Version : 5

## 1. Identification of the material and supplier

### Names

**Product code** : 10090-LIQUI  
**Product name** : D9 SB ZINC SILICATE LIQUID  
**Supplier** : PPG Industries Australia  
Pty Limited (ABN 82 055 500 939)  
Locked Bag 888  
CLAYTON SOUTH Victoria 3169  
Tel: (03) 9263 6000 Fax: (03) 9263 6970  
**Emergency telephone number** : 1800 033111 (24hr)

### Uses

**Recommended use** : Coating. Paint. Painting-related materials.

## 2. Hazards identification

**Statement of hazardous/dangerous nature** : HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

**Risk phrases** : R11- Highly flammable.  
R49- May cause cancer by inhalation.

**Safety phrases** : S53- Avoid exposure - obtain special instructions before use.  
S2- Keep out of the reach of children.  
S46- If swallowed, seek medical advice immediately and show this container or label.

## 3. Composition/information on ingredients

Ingredient name	CAS number	Concentration
ethanol	64-17-5	30 - 60
1-methoxy-2-propanol	107-98-2	0 - 10
xylene	1330-20-7	0 - 10
tetraethyl silicate	78-10-4	0 - 10
solvent naphtha (petroleum), light arom.	64742-95-6	0 - 10
1,2,4-trimethylbenzene	95-63-6	0 - 10
silica, crystalline - quartz	14808-60-7	0 - 10
mesitylene	108-67-8	0 - 10

Other ingredients, determined not to be hazardous according to NOHSC criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

## 4. First-aid measures

**Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

**Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do not use solvents or thinners.

**Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.

**Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5 . Fire-fighting measures

### Extinguishing media

- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon oxides  
halogenated compounds  
metal oxide/oxides
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.  
  
Highly flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Hazchem code** : 3(Y)E

## 6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

## 7. Handling and storage

**Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### Ingredient name

#### Exposure limits

ethanol

**ASCC (Australia, 8/2005).**TWA: 1880 mg/m<sup>3</sup>, 0 times per shift, 8 hour(s).

TWA: 1000 ppm, 0 times per shift, 8 hour(s).

1-methoxy-2-propanol

**NOHSC (Australia, 8/2005).**STEL: 553 mg/m<sup>3</sup>, 0 times per shift, 15 minute(s).

STEL: 150 ppm, 0 times per shift, 15 minute(s).

TWA: 369 mg/m<sup>3</sup>, 0 times per shift, 8 hour(s).

TWA: 100 ppm, 0 times per shift, 8 hour(s).

xylene

**NOHSC (Australia, 8/2005).**STEL: 655 mg/m<sup>3</sup>, 0 times per shift, 15 minute(s).

STEL: 150 ppm, 0 times per shift, 15 minute(s).

TWA: 350 mg/m<sup>3</sup>, 0 times per shift, 8 hour(s).

TWA: 80 ppm, 0 times per shift, 8 hour(s).

tetraethyl silicate

**NOHSC (Australia, 8/2005).**TWA: 85 mg/m<sup>3</sup> 8 hour(s).

TWA: 10 ppm 8 hour(s).

1,2,4-trimethylbenzene

**ASCC (Australia, 8/2005).**TWA: 123 mg/m<sup>3</sup>, 0 times per shift, 8 hour(s).

TWA: 25 ppm, 0 times per shift, 8 hour(s).

silica, crystalline - quartz

**NOHSC (Australia, 8/2005).**TWA: 0.1 mg/m<sup>3</sup>, 0 times per shift, 8 hour(s).

mesitylene

**ASCC (Australia, 8/2005).**TWA: 123 mg/m<sup>3</sup>, 0 times per shift, 8 hour(s).

TWA: 25 ppm, 0 times per shift, 8 hour(s).

### Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

### Exposure controls

#### Engineering measures

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eyes

: Safety glasses with side shields.

#### Gloves

: For prolonged or repeated handling, use the following type of gloves:

Recommended: butyl rubber, foil, fluor rubber

#### Respiratory

: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

## 8 . Exposure controls/personal protection

- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

References: Eye protectors should conform to AS/NZS 1336 and AS/NZS 1337. Chemical-resistant gloves should conform to AS/NZS 2161.1. Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716. Occupational footwear should conform to AS/NZS 2210.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Colour** : Not available.
- Odour** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Melting point** : Not available.
- Vapour pressure** : Not available.
- Relative density** : 1.04
- Flash point** : Closed cup: 13°C (55.4°F)
- Flammable limits** : Not available.
- Vapour density** : Not available.
- pH** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.07 cm<sup>2</sup>/s (>7 cSt)
- Auto-ignition temperature** : Not available.
- Solubility** : Not available.

## 10 . Stability and reactivity

- Stability** : Stable under recommended storage and handling conditions (see section 7).
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Materials to avoid** : oxidizing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11 . Toxicological information

### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : May cause skin irritation.
- Eye contact** : May cause eye irritation.

### Potential chronic health effects

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental toxicity	Impairs fertility
silica, crystalline - quartz	Carc. Cat. 1; R49	-	-	-

### Over-exposure signs/symptoms

Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Inhalation of high concentrations of vapour may affect the central nervous system.

- Target organs** : Contains material which causes damage to the following organs: blood, kidneys, liver, brain, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.  
Contains material which may cause damage to the following organs: the reproductive system, heart.

## 12 . Ecological information

**Environmental effects** : No known significant effects or critical hazards.

### Other ecological information

#### Biodegradability

**Conclusion/Summary** : Not available.

**Mobility** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

Do not allow to enter drains or watercourses.

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

## 14 . Transport information

Regulation	UN number	Proper shipping name	Classes	PG*	Additional information
ADG	1263	Paint	3	II	<u>Hazchem code</u> 3(Y)E
ADR	1263	Paint	3	II	-
IMDG	1263	Paint	3	II	-
IATA	1263	Paint	3	II	-

PG\* : Packing group

## 15 . Regulatory information

### Standard for the Uniform Scheduling of Drugs and Poisons

**SUSDP Schedule** : None.

### Control of Scheduled Carcinogenic Substances

#### Ingredient name

No listed substance

#### Schedule

**Australia inventory (AICS)** : All components are listed or exempted.

## 16 . Other information

**Date of issue** : 1 February 2009

**Organisation that prepared the MSDS** : EHS

Indicates information that has changed from previously issued version.

### Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.