

# SAFETY DATA SHEET



Revision date: 29-May-2023

Revision Number 1

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### Product identifier

**Product Name** Silane couple agent KBM-602

**Product Code(s)** 000000027017

### Other means of identification

**CAS No.** 3069-29-2

**Synonyms** SILKBM602-200

**Pure substance/mixture** Substance

### Recommended use of the chemical and restrictions on use

**Recommended use** For industrial use only. Raw material for coatings.

**Uses advised against** No information available

### Supplier

Ixom Operations Pty Ltd (Bronson & Jacobs division) - incorporated in Australia  
ABN:51 600 546 512  
70 Marple Avenue  
Villawood NSW 2163  
Australia

Telephone Number: +61 2 8717 2929  
Facsimile: +61 2 9755 9611

### Emergency telephone number

Emergency telephone number **1 800 033 111 (ALL HOURS)**

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG)

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

**Flammable liquids**

Category 4

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1A
Reproductive toxicity	Category 1B

**SIGNAL WORD**

Danger

**Label elements**

Corrosion  
Health hazard  
Exclamation mark

**Hazard statements**

H227 - Combustible liquid  
H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H360 - May damage fertility or the unborn child

**Precautionary Statements - Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
Avoid breathing dust / fume / gas / mist / vapours / spray  
Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves / protective clothing / eye protection / face protection

**Precautionary Statements - Response**

Specific treatment (see First aid on this SDS)  
If exposed or concerned: Get medical advice/attention  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor/physician  
IF ON SKIN: Wash with plenty of soap and water  
If skin irritation or rash occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth  
In case of fire: Use extinguishing media as outlined in Section 5 of this Safety Data Sheet to extinguish.

**Precautionary Statements - Storage**

Store locked up  
Store in well-ventilated place

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards which do not result in classification**

Poisons Schedule (SUSMP) None allocated

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Chemical name	CAS No.	Weight-%
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	3069-29-2	90-100
impurity as	-	-
Methanol (methyl alcohol)	67-56-1	0.3-1

**4. FIRST AID MEASURES****Description of first aid measures**

<b>General advice</b>	For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.
<b>Inhalation</b>	Remove to fresh air. Call a physician if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Irritation/Corrosion. May cause redness and tearing of the eyes. May cause allergic skin reaction. Redness. Rashes. Hives.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically. Can cause corneal burns. May cause sensitization by skin contact.
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**5. FIRE FIGHTING MEASURES****Suitable Extinguishing Media**

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Foam.
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<b>Unsuitable extinguishing media</b>	No information available.
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**Specific hazards arising from the chemical**

<b>Specific hazards arising from the chemical</b>	Combustible liquid. On burning will emit toxic fumes, including those of oxides of carbon. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
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<b>Hazardous combustion products</b>	Oxides of carbon. Oxides of silicon. Nitrogen oxides.
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**Special protective actions for fire-fighters**

<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Evacuate personnel to safe areas. Do not touch or walk through spilled material. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.
<b>Other information</b>	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Shut off ignition sources. Clear area of all unprotected personnel. Use personal protection recommended in Section 8.

### Environmental precautions

<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.
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### Methods and material for containment and cleaning up

<b>Methods for containment</b>	Stop leak if you can do it without risk. Remove ignition sources. Provide adequate ventilation. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	Slippery when spilt. Avoid accidents, clean up immediately. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on safe handling</b>	Avoid contact with skin, eyes, and clothing. Avoid breathing vapors or mists. Ensure adequate ventilation. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Handle in accordance with good industrial hygiene and safety practice. Use according to package label instructions. Not to be used by pregnant workers and workers who have recently given birth or who are breastfeeding.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Store locked up. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Store away from incompatible materials described in Section 10. Keep container closed when not in use.  Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.
<b>Incompatible materials</b>	Strong oxidizing agents. Water. Acids. alkalis.
<b>Poisons Schedule (SUSMP)</b>	None allocated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Limits**

No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for impurity:

Methyl alcohol (Methanol): 8hr TWA = 262 mg/m<sup>3</sup> (200 ppm), 15 min STEL = 328 mg/m<sup>3</sup> (250 ppm), Sk

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

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

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

**Appropriate engineering controls****Engineering controls**

Ensure adequate ventilation, especially in confined areas. Eyewash stations. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Apply technical measures to comply with the occupational exposure limits.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

**Individual protection measures, such as personal protective equipment**

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES.

**Eye/face protection**

Tight sealing safety goggles.

**Skin and body protection**

Wear suitable protective clothing. Boots. Overalls.

<b>Hand protection</b>	Impervious gloves.
<b>Respiratory protection</b>	If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
<b>Environmental exposure controls</b>	No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	No information available
<b>Color</b>	Clear Colourless
<b>Odor</b>	Amine
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	No data available	None known
<b>pH (as aqueous solution)</b>	No data available	None known
<b>Melting point / freezing point</b>	<0°C	None known
<b>Boiling point / boiling range</b>	234 °C	None known
<b>Flash point</b>	86 °C	CC (closed cup)
<b>Evaporation rate</b>	< 1 (Butyl Acetate=1)	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	<1.3 kPa @ 25°C	None known
<b>Vapor density</b>	7.1 (air=1)	None known
<b>Relative density</b>	0.98 @25°C	None known
<b>Water solubility</b>	Miscible in water	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	>200 °C	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	4.1 mm <sup>2</sup> /s	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other information

## 10. STABILITY AND REACTIVITY

### Reactivity

<b>Reactivity</b>	This product slowly reacts with water, acids or bases to evolve following compounds: Methanol (1).
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### Chemical stability

<b>Stability</b>	Stable under normal conditions.
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### Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** Yes.

**Possibility of hazardous reactions****Possibility of hazardous reactions** None under normal processing.**Conditions to avoid****Conditions to avoid** Heat, flames and sparks. Static discharge (electrostatic discharge). Direct sunlight.**Incompatible materials****Incompatible materials** Strong oxidizing agents. Water. Acids. alkalis.**Hazardous decomposition products****Hazardous decomposition products** Oxides of carbon. Oxides of silicon. Nitrogen oxides.**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Information on likely routes of exposure**

<b>Product Information</b>	No adverse health effects expected if the chemical is handled in accordance with this Safety Data Sheet and the chemical label. Symptoms or effects that may arise if the chemical is mishandled and overexposure occurs are:
<b>Inhalation</b>	May cause irritation.
<b>Eye contact</b>	Causes serious eye damage. Can result in permanent injury.
<b>Skin contact</b>	Causes skin irritation.
<b>Ingestion</b>	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
<b>Symptoms</b>	Irritation/Corrosion. May cause redness and tearing of the eyes. May cause allergic skin reaction. Redness. Rashes. Hives.

**Numerical measures of toxicity - Product Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
N-[3-(dimethoxymethylsilyl)propyl]ethylenediamine	200 - 2000 mg/kg (Rat)(1)	-	-
Methanol (methyl alcohol)	= 6200 mg/kg ( Rat )	= 15840 mg/kg ( Rabbit ) = 15800 mg/kg ( Rabbit )	= 64000 ppm ( Rat ) 4 h = 22500 ppm ( Rat ) 8 h

See section 16 for terms and abbreviations

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Respiratory or skin sensitization</b>	May cause sensitization by skin contact.
<b>Germ cell mutagenicity</b>	No information available.

<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	H360 - May damage fertility or the unborn child. Reproductive effect: NOAEL 1000mg/kg/day(Rat), Developmental toxicity:NOAEL1000mg/kg/day(Rat)(1).
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Ecotoxicity** Avoid contaminating waterways.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methanol (methyl alcohol)	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis macrochirus)	-	-

### Persistence and degradability

**Persistence and degradability** BOD(Biochemical Oxygen Demand) : 180mg/l (0.05% in water). Causes easily hydrolysis in water or atmosphere.(1).

### Bioaccumulative potential

**Bioaccumulation** No information available.

### Component Information

Chemical name	Partition coefficient
Methanol (methyl alcohol)	-0.77

### Mobility

**Mobility in soil** No information available.

### Other adverse effects

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.



**Contaminated packaging**

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

**14. TRANSPORT INFORMATION****ADG**

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

**IATA**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

**IMDG**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

**15. REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

Not classified as dangerous goods in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG)

Classified as a hazardous chemical in accordance with the criteria of Safe Work Australia - Globally Harmonized System (GHS).

See section 8 for national exposure control parameters

**Poisons Schedule (SUSMP)**

None allocated

**National pollutant inventory**

Subject to reporting requirement

Chemical name	National pollutant inventory
Methanol (methyl alcohol) - 67-56-1	10 tonne/yr Threshold category 1

**Banned and/or restricted**

Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met.

Chemical name	Carcinogen	Restricted substance
Methanol (methyl alcohol) - 67-56-1		For spray painting at a concentration of >1% by volume

**International Inventories****AIIC**

This material is listed on the Australian Inventory of Industrial Chemicals.

**Legend:**

AIIC- Australian Inventory of Industrial Chemicals

**International Regulations**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

## 16. OTHER INFORMATION

Supplier Safety Data Sheet 08/ 2022

**Reason(s) For Issue:** First Issue Primary SDS

**Issuing Date:** 29-May-2023

This Safety Data Sheet has been prepared by Ixom Operations Pty Ltd (Toxicology and SDS Services).

**Revision Note:**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

**Key literature references and sources for data used to compile the SDS**

EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGL(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australian Industrial Chemicals Introduction Scheme (AICIS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 RTECS (Registry of Toxic Effects of Chemical Substances)  
 World Health Organization

**Disclaimer**

**This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.**

**If clarification or further information is needed, the user should contact their Bronson & Jacobs representative or Ixom Operations Pty Ltd at the contact details on page 1.**

**Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.**

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris and Australian Botanical Products.

**End of Safety Data Sheet**