



Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566

Telephone: (02) 9603-3399 Fax: (02) 9603-7761

Website: www.austspecialtyinks.com.au

FLATTENING AGENT FSU5619

Page 1 of 6

MATERIAL SAFETY DATA SHEET

Not classified as hazardous according to criteria of Worksafe Australia.

Date of issue: March 2009

COMPANY DETAILS

AUSTRALIAN SPECIALTY INKS PTY LTD

A.B.N. 71 002 591 620

17 REAGHS FARM ROAD MINTO NSW

2566 (02) 9603-3399

A/H (02) 9792-7790 or Mobile 0414 616247

IDENTIFICATION

Product Name: FLATTENING AGENT FSU5619

U.N. Number: Not applicable

Trade Name:

Other Names: Amorphous Silicone Dioxide, Silica Gel, Silicic Acid

Dangerous Goods Class/and Subsidiary Risk: Not applicable

Hazchem Code: Not applicable

Manufacturers Code: FSU5619

Poisons Schedule: Not applicable

Pack Group: Not applicable

Use: Product is for use as an ink additive

PHYSICAL DATA

Appearance Dry white powder.

Melting Point Not applicable

Boiling Point Not applicable

Vapor Pressure Not applicable

Specific Gravity Not applicable

Flash Point Not applicable

Flamm. Limit Not applicable

Other Properties

Bulk Density: 200kg cubed

Ingredients
Name

CAS RN

Proportion

Silica Amorphous

7631-86-9

>60%



HEALTH HAZARD INFORMATION

HEALTH EFFECTS

Swallowed: Not normally a hazard due to physical form of product. The material is a physical irritant to the gastro-intestinal tract.

Eye: The dust may be discomforting and may be abrasive to the eyes.

Skin: The material may be mildly discomforting and abrasive to the skin and may cause drying of the skin if exposure is prolonged.

Inhalation: The dust may be discomforting to the upper respiratory tract and may be harmful if inhaled and if exposure is prolonged.

Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.

Chronic Effects: Principal routes of exposure are usually by inhalation of generated dust and skin contact with the material. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

The synthetic, amorphous silicas are believed to represent a very greatly reduced silicosis hazard compared to crystalline silicas. Inhalation of dusts containing crystalline silicas may lead to silicosis. A disabling pulmonary fibrosis that may take years to develop. When heated to high temperature, amorphous silica can produce crystalline silica on cooling. Treat as a nuisance dust. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

FIRST AID

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 (or milk) to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Eye: Immediately flood the eye with plenty of water, preferably warm, for at least 15 minutes, holding the eye open. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. Obtain medical attention if symptoms persist.

Skin: Wash skin with water and soap if available. Continue washing for at least 15 minutes. Contaminated clothing should be washed or dry-cleaned before re-use. Obtain medical attention if irritation occurs.

Inhaled: Remove from exposure. Keep warm and at rest. Encourage patient to blow nose to ensure clear breathing passages. If there is difficulty in breathing, give oxygen. If breathing stops or shows signs of failing, give artificial respiration. Obtain medical attention.



Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566

Telephone: (02) 9603-3399 Fax: (02) 9603-7761

Website: www.austspecialtyinks.com.au

FLATTENING AGENT FSU5619

Page 3 of 6

Advice to Doctor Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray.

PRECAUTIONS FOR USE

Exposure Standards For Mixture

“Worst Case” computer-aid prediction of spray/mist or fume/dust components and concentration:

Composite Exposure Standards for Mixture (TWA) (mg/ m³): mg/m³.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zones.

If the breathing zone concentration of ANY of the components listed below is exceeded, “Worst Case” considerations deem the individual to be overexposed.

Component	Breathing Zones	Mixture
Silica amorphous	ppm mg/ m ³ .	Conc: (%)
	2.0000	100.0

Ingredient Data

SILICA AMORPHOUS:

Containing no asbestos and <1% crystalline silica

TLV TWA: 10mg/m³ total dust

TLV TWA: 2mg/ m³ respirable dust (fumed silica)

ES TWA: 2mg/m³ respirable dust (fumed silica)

OES TWA: 2.4mg/ m³ total inhalable dust

OES TWA: 2.4mg/ m³ respirable dust

IDLH Level: 3000mg/m³

Engineering Controls

Use in a well-ventilated area

Local exhaust ventilation is required where solids are handle as powders or crystals; even when particulates are relatively large, a certain proportion will powdered by mutual friction.

Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.

If in spite of local exhaust an adverse concentration of the substance in could occur, respiratory protection should be considered. Such protection might consist of:

- Particle dust respirators, if necessary, combined with an absorption cartridge;
- Filter respirator with absorption cartridge or canister of the right type;
- Fresh air hoods or masks

Build up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.

Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. 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.

Type of Contaminant:



Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566

Telephone: (02) 9603-3399 Fax: (02) 9603-7761

Website: www.austspecialtyinks.com.au

FLATTENING AGENT FSU5619

Page 4 of 6

Direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).

Within each range the appropriate value depends on:

Lower end of the range

1. Room air currents minimal or favourable to capture
2. Contaminants of low toxicity or of nuisance value only
3. Intermittent, low production
4. Large hood or large air mass in motion

Upper end of the range

1. Disturbing room air currents
2. Contaminants of high toxicity
3. High production, heavy use
4. Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10m/s (200-2000f/min.) for extraction of crusher dusts generated 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

PERSONAL PROTECTION

EYE

Safety glasses with side shields; or as required, Chemical goggles. Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET

Wear general protective gloves, eg. Light weight rubber gloves. Protective footwear

OTHER

Overalls

Eyewash unit.

RESPIRATOR

Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
10xES	P1 Air-line*	-	PAPR-P1
50+xES	Air-line**	P2	PARR-P2
100Xes	-	P3 Air-line*	-
100+xES	-	Air-line**	PAPR-P3

*-Negative pressure demand **-Continuous flow

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.



Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566

Telephone: (02) 9603-3399 Fax: (02) 9603-7761

Website: www.austspecialtyinks.com.au

FLATTENING AGENT FSU5619

Page 5 of 6

SAFE HANDLING INFORMATION

STORAGE AND TRANSPORT

SUITABLE CONTAINER

Multi ply paper bag with sealed plastic liner or heavy gauge plastic bag

NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse. Check that all containers are clearly labelled and free from leaks Packing as recommended by manufacture.

STORAGE INCOMPATIBILITY

Store away from magnesium and hydrofluoric acid

STORAGE REQUIREMENTS

Keep dry.

Store under cover.

Protect containers against physical damage.

Observe manufacture's storing and handing recommendations.

TRANSPORTATION

No restrictions

SPILLS AND DISPOSAL

MINOR SPILLS

Clean up all spills immediately.

Avoid contact with skin and eyes.

Wear impervious gloves and safety glasses.

Use dry clean up procedures and avoid generating dust.

Vacuum up or sweep up.

Place spilled material in clean, dry, sealable, labelled container.

MAJOR SPILLS

Clear area of personnel and move upwind.

Alert Fire Brigade and tell them location and nature of hazard.

Control personal contact by using protective equipment and dust respirator.

Prevent spillage form entering drains, sewers or watercourses.

Recover product wherever possible. Avoid generating dust.

Sweep/shovel up.

If required, wet with water to prevent dusting.

Put residues in labelled plastic bags or other containers for disposal.

Wash area down with large quantity of water and prevent runoff into drains.

If contamination of drains or waterways occurs, advise emergency services.

DISPOSAL

Recycle wherever possible or consult manufacturer for recycling options.

Consult State Land Waste Management Authority for disposal.

Bury residue in an authorised landfill



Australian Specialty Inks Pty Ltd

ABN 71 002 591 620

17 Reaghs Farm Rd, Minto NSW 2566

Telephone: (02) 9603-3399 Fax: (02) 9603-7761

Website: www.austspecialtyinks.com.au

FLATTENING AGENT FSU5619

Page 6 of 6

FIRE FIGHTERS' REPORT

EXTINGUISHING MEDIA

There is no restriction on the type of extinguisher which may be used.

FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

Use fire fighting procedures suitable for surrounding area.

When silica dust is dispersed in air, firefighters should wear inhalation protection as hazardous substances from the fire may be adsorbed on the silica particles.

FIRE/EXPLOSION HAZARD

Non combustible

Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

Reacts with hydrofluoric acid to produce silicon tetrafluoride gas.

Reacts with xenon hexafluoride to produce explosive xenon trioxide.

In the presence of water and heat, forms an explosive mixture with magnesium. Reacts exothermically with oxygen difluoride, and explosively with chlorine trifluoride.

These halogenated materials are not commonplace industrial materials.

Heating with alkali carbonates can produce a vigorous reaction.

HAZCHEM

None

Contact Point: Technical Director (02) 9603-3399

Date: March 2009