

Material Safety Data Sheet

Revision Date: 05.04.2013

1. Product and company identification

Product or preparation name: Unicoatings 2k-Anti Graffiti - **Hardener**
Product use: Two-component paint
Supplier: Unicoatings Australia
PO Box 75
Scarborough Qld 4020
Phone: (07) 3203 7502
Mobile / Emergency Telephone: 0412 211 725

2. Composition/Information on ingredients

EINECS	CAS	Description following EC guidelines	Strength	Unit Classif	R phrases
200-751-6	71-36-3	Butan-1-ol	25-30%	Xn Xi	10
213-048-4	919-30-2	γ -APS	> 50%	C Sn	34 22

For the wording of the R phrases, see point 168 [sic].

3. Possible hazards

This preparation irritates the eyes and is flammable. Repeated contact can lead to rough or chapped skin. Leaking product damages waterways through oxygen consumption and general pollution level.

4. First Aid Measures

General

In cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation:

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth. Consult a physician.

Skin Contact:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do NOT use solvents or thinners.

Eye contact:

If eyelids have been splashed, rinse thoroughly under running water and consult an eye specialist.

Ingestion:

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

5. Firefighting measures

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray. Do not use – water jet.

Note; Fire will produce dense black smoke. Decomposition products may be hazardous to health. Avoid exposure and use breathing apparatus as appropriate.

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

6. Accidental release measures

Remove sources of ignition; do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapour levels are below the Lower Explosive Limit before re-entering.

Ventilate the area to avoid breathing vapours. Take the personal protective measures listed in Section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to relevant State and Federal regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents. Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the relevant Environment Protection Agency.

Empty containers may contain product residues, including flammable or explosive vapours. Do not cut, puncture or weld on or near containers. All labels warnings must be observed until the containers have been cleaned or reconditioned

7. Handling and storage

Handling:

This product contains solvents. Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Areas of storage, preparation and application should be ventilated to prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.

In Storage

Handle containers carefully to prevent damage and spillage.

Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks and electrical equipment are protected to the appropriate standard.

In Use

Avoid skin and eye contact. Avoid inhalation of vapours and spray mists. Observe label precautions. Use personal protection as shown in section 8.

Smoking, eating and drinking should be prohibited in all preparation and application areas. Never use pressure to empty a container; containers are not pressure vessels.

All sources of ignition (hot surfaces, sparks, open flames etc) should be excluded from areas of preparation and application. All electrical equipment (including torches) should be protected (Ex) to the appropriate standard.

The product may charge electrostatically. Always use earthing leads when pouring solvents and transferring product. Operators should wear clothing which does not generate static (at least 60% natural fibre) and antistatic footwear; floors should be of conducting type.

Storage

Store in a well ventilated, dry place away from sources of heat and direct sunlight.

Store on concrete or other impervious floor, preferable with bunding to contain any spillage. Do not stack more than 3 pallets high.

Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in the original container or one of the same material.

Prevent unauthorized access.

The requirements of AS/NZS1940 (Storage and Handling of Flammable and Combustible Liquids) apply to all products with a Flash Point less than 61C. Refer to this standard and to state Dangerous Goods Storage and Handling regulations.

VCI storage class: LGK 3A

8. Exposure controls and personal protection

Engineering Measures

Provide adequate ventilation. Where reasonable practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapour below occupational exposure limits suitable respiratory protection must be worn.

Exposure Limits

From Safework Australia's Hazardous Substance Information System (HSIS) For detailed information refer to the HSIS web site (<http://hsis.ascc.gov.au>).

Additional information for the creation of technical installation or plant: See point 7, 'Handling and Storage'.

Components with workplace-related limits to be monitored (TRGS 900 Germany):

Peak limiting

CAS no	Designation of material	Type	Value / Unit	Excess factor	Remarks
71-36-3	Butan-1-ol	MAK	100 ppm	=1=	Y

Components with workplace-related limits to be monitored (TRGS 903 Germany):

CAS	Name of material	Type	Value/Unit	Parameter	Investigation material
71-36-3	Butan-1-ol	BAT	2mg/l	Creatinine Butan-1-ol	U

Chemicals classified as hazardous by Safework Australia may have a notification alongside the exposure standard. If such a notification is necessary, it will appear in the far right hand column. The legend is as follows:

(P) Peak exposure limit

(R) Suppliers Recommended Limit

(Sk) There is a risk of absorption through unbroken skin (Sen) Sensitiser

(Cat1) Category 1 – established human carcinogen (Cat2) Category 2 – probable human carcinogen

(Cat3) Category 3 – Substances suspected of having carcinogenic potential. There is no biological limit allocated.

Personal Protection

Respiratory Protection

When concentrations exceed the exposure limits shown above workers must wear appropriate respirators approved in accordance AS/NZS1716. Provision of other controls such as exhaust ventilation should be considered if practical.

Eye Protection

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash or liquids. Eyewear should comply with AS/NZS1337.

Wear a full face shield if mixing or pouring operations pose a risk of splashes. An eye wash station is suggested as a good work place practice

Hand Protection

Gloves of an appropriate material should be worn during mixing and application. Nitrile or PVC are generally recommended for products containing solvents.

Skin Protection

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. Barrier creams may help to protect areas which are difficult to cover such as the face and neck. They should however not be applied once exposure has occurred. Petroleum jelly based types such as Vaseline should not be used. All parts of the body should be washed after contact.

9. Physical and chemical properties

Appearance

Physical state: liquid Colour: Colourless Odour: amino-like

Safety-related data

Melting point/Melting ranges:	Not available.	
Boiling point/boiling range:	Not available.	
Flashpoint:	34,0°C	
pH:	Not applicable.	
Flammability:	Flammable.	
Ignition temperature:	Not available.	
Auto ignition:	Not applicable.	
Flammable properties:	Not applicable.	
Explosive:	Applicable to air-steam mixture	
Explosion limits:	lower: 1,4.-%	(solvent)
	upper: 11,3 Vol-%	(solvent)
Density:	Not available.	
Solubility in H ₂ O:	Not applicable (chemical reaction).	
Vapour pressure:	Not available	
Distribution coefficient:	Not available	
Solvent separation tests:	Not available.	
Viscosity	11 s (4 mm DIN beaker)	
Solvent content:	25 – 30 %	
Evaporation number:	Not available	

10. Stability and Reactivity

Chemical stability

Stable under recommended storage and handling conditions (see section 7).

Conditions to avoid

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid possible exothermic reactions.

Incompatible materials

Strong acids, bases, oxidizing agents.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

Hazardous reactions None.

Further information:

Strong exothermic reaction with water with the formation of alcohol – risk of inflammation through the lowering of flash point.

11. Toxicological information

There are no data available on the product itself.

Exposure to solvent vapour concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidney, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashed of liquid in the eyes may cause irritation and soreness with possible reversible damage.

12. Ecological information

Persistence and degradability: The ingredients are decomposed through hydrolysis to alcohol and organic silicon compounds.

There are no data available on the product itself. The product should not be allowed to enter drains or water courses.

13. Waste disposal information

Do not allow into drains or water courses. Wastes and empty containers should be disposed of in accordance with State and Federal regulations.

Using information provided in this data sheet advice should be obtained from the local Waste Regulation Authority as to whether special waste regulations apply.

14. Transport information

Road/Rail (ADR/RID), Inland Waterways (ADNR):

Class: 8 UN: 2920 PG.: II Hazard label no.: 8 + 3

Description: caustic (corrosive) liquid material, flammable, n.a.s.

(γ -aminopropyltriethoxysilane, Butanole).

Seagoing vessels (IMDG-Code):

Class: 8 UN: 2920 PG: II Medium danger: 3 EMS no.: 8-15

MFAG: 760

Marine pollutant: not applicable.

Correct technical name: Caustic liquid, flammable, n.a.s.

(γ -Aminopropyltriethoxysilane, Butanole). (34°C c.c.).

Aircraft (ICAO-TI/IATA-DGR):

Class: 8 UN: 2920 PG: II Medium danger: 3

Proper shipping name: Corrosive Liquid, flammable, n.o.s.

(γ -Aminopropyltriethoxysilane, butanols).

15. Regulatory information

Marking in accordance with EC guidelines

Symbol and hazard labelling of the product: C - corrosive.

Components establishing risk for labelling:

γ -Aminopropyltriethoxysilane.

R phrases:

34	Causes burns
22	Harmful if swallowed
37	Irritating to respiratory system
67	Vapours may cause drowsiness and dizziness
10	Flammable

S phrases:

7/9	Keep container tightly closed in a cool, well-ventilated place
23	Do not breathe gas/fumes/vapour/spray
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
45	In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible.)
51	Use only in well-ventilated areas.

National regulations

Occupational restrictions:	Yes
Duty of safekeeping in accordance with § 24 Hazardous Materials Ordinance:	Yes
Naming in Appendix I of the Ordinance on Incidents:	Comply with threshold quantities for materials group 6.
Technical Instructions Air (2002):	Comply with limits for organic materials in accordance with 5.2.5, and for varnish particles in accordance with 5.4.5.
Water Danger/Protection class:	WGK 1

Other regulations, limits and Prohibition Regulations

Comply with Leaflets M 004, M 017 and M 050 of the "BG Chemie"

16. Other information

The information on this MSDS is based upon the present state of our knowledge and on current State and Federal laws.

The product should not be used for purposes other than shown in the product data sheet without first obtaining written advice.

It is always the responsibility of the user to take all necessary steps to meet the demands of applicable legislation.

Listing of the Risk phrases (R phrases) in accordance with points 2 and 3:

10	Flammable
22	Harmful if swallowed
34	Causes burns
37	Irritating to respiratory system
38	Irritating to skin
41	Risk of serious damage to eyes
66	Repeated exposure may cause skin dryness or cracking
67	Vapours may cause drowsiness and dizziness

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