SAFETY DATA SHEET GRAFFGO

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name GRAFFGO

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Permanent Anti-Graffiti Coating

1.3. Details of the supplier of the safety data sheet

Supplier Urban Hygiene LTD Sky Business Park

Robin Hood International Airport

Doncaster, South Yorkshire DN9 3GN United Kingdom 01302 623193

1.4. Emergency telephone number

07984 909160

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Not classified.

Human health Skin Sens. 1 - H317

Environment Not classified.

Classification (1999/45/EEC) R43.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

The product contains a small amount of sensitizing substance which may provoke an allergic reaction among sensitive individuals in contact with skin.

Environment

The product is not expected to be hazardous to the environment.

2.2. Label elements

Contains METHYL-0,0',0"-BUTAN-2-ONE-TRIOXIMOSILANE

BUTANONE OXIME VINYLSILANE

Label In Accordance With (EC) No. 1272/2008



Signal Word Warning

Hazard Statements

H317 May cause an allergic skin reaction.

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P501 Dispose of contents/container to ...

Supplementary Precautionary Statements

P272 Contaminated work clothing should not be allowed out of the workplace.

P261 Avoid breathing vapour/spray.

P321 Specific treatment (see medical advice on this label).
P302+352 IF ON SKIN: Wash with plenty of soap and water.

P333+313 If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing beforereuse.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

METHYL-0,0',0"-BUTAN-2-ONE-TRIOXIMOSILANE			1 5%
CAS-No.: 22984-54-9	EC No.: 245-366-4		
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Skin Irrit. 2 - H315		Xi;R36/38.	
Eye Irrit. 2 - H319			
BUTANONE OXIME VINYLSILANE			1 - 5%
CAS-No.: 2224-33-1	EC No.: 218-747-8		
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Skin Irrit. 2 - H315		Xi; R36/38, R41.	
Eye Dam. 1 - H318, H319			
Eye Irrit. 2 - H318, H319			

3-(2-AMINOETHYLAMINO)-PROPYLTRIMETHOXYSILANE			
CAS-No.: 1760-24-3	EC No.: 217-164-6		
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Acute Tox. 4 - H332		Xn; R20.	
Eye Dam. 1 - H318		Xi; R41.	
Skin Sens. 1 - H317		N; R51/53.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information - In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation - Move into fresh air and keep at rest. Get medical attention if any discomfort continues. Ingestion - Immediately rinse mouth and drink plenty of water (200-300 ml). Give instead of water if readily available. DO NOT induce vomiting. Get medical attention immediately.

Skin contact - Wipe off excess material with cloth or paper. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact - Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation - No specific symptoms noted.

Ingestion - May cause discomfort if swallowed.

Skin contact - Mild dermatitis, allergic skin rash. Eye contact - May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Water spray, fog or mist. Foam, carbon dioxide or dry powder.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific hazards

Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Water spray should be used to cool containers. Keep run-off water out of sewers and water sources. Dike for water control. Avoid water in straight hose stream; will scatter and spread fire

Protective equipment for fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

$\underline{\textbf{6.1.}} \ \underline{\textbf{Personal precautions}, \textbf{protective equipment and emergency procedures}}$

Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Absorb in vermiculite, dry sand or earth, and place into containers. Clean any slippery coating that remains using a detergent/soap solution or another biodegradable cleaner.

6.4. Reference to other sections

For personal protection, see section 8. See section 11 for additional information on health hazards. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Persons susceptible to allergic reactions should not handle this product. Observe good chemical hygiene practices. Do not eat, drink or smoke when using the product.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

Storage Class

Miscellaneous hazardous material storage.

7.3. Specific enduse(s)

The identified uses for this product are detailed in Section 1.2.

Usage Description

Pourable sealant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments

No exposure limits noted for ingredient(s).

8.2. Exposure controls

Protective equipment





Process conditions

Provide eyewash station.

Engineering measures

Well-ventilated area.

Respiratory equipment

No specific recommendations.

Hand protection

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the

glove material. Eye protection

Wear approved safety goggles.

Other Protection

Use barrier creams to prevent skin contact.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance Liquid
Colour Misc. colours.
Odour Slight odour.
Solubility Insoluble in water
Initial boiling point and boiling range (° Not applicable.

C)

Melting point (°C) Not applicable. 1.0 @ 20°C Relative density Vapour density (air=1) Not applicable. Vapour pressure Not applicable. Evaporation rate Not applicable. **Evaporation Factor** Not applicable. pH-Value, Conc. Solution Not applicable. Viscosity < 300 poise @ 20°C Decomposition temperature (°C) Not determined. Odour Threshold, Lower Not determined. Odour Threshold, Upper Not determined. Flashpoint (°C) Not applicable. Auto Ignition Temperature (°C) Not applicable. Flammability Limit - Lower(%) Not applicable.

Partition Coefficient (N-Octanol/Water)

Flammability Limit - Upper(%)

Explosive properties Not applicable.

Oxidizing properties Not applicable.

Not applicable.

Not applicable.

Not applicable.

9.2. Other information

Not known.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Polymerization

Will not polymerize.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to Avoid

Strong oxidizing substances.

10.6. Hazardous decomposition products

None at ambient temperatures. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxic Dose 1 - LD 50 Methyl-0-0'-0"-butan-2-one-trioximosilane >1000 mg/kg (oral rat)

Toxic Conc. - LC 50 Methyl-0-0'-0"-butan-2-one-trioximosilane >50 mg/l/4h (inh-rat)

Toxicological information

Butanone-2-oxime (MEKO) is damaging to nasal membranes in rats and mice at a concentration in excess of 10ppm over a prolonged period of time.

Acute toxicity:

Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:

Based on available data the classification criteria are not met.

Respiratory or skin sensitization:

The product contains a small amount of a sensitizing substance which may cause an allergic reaction in sensitive individuals.

Germ cell mutagenicity:

Does not contain any substances known to be mutagenic.

Carcinogenicity:

Does not contain any substances known to be carcinogenic.

Reproductive Toxicity:

Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure:

Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure:

Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard:

	Based on available data the classification criteria are not met.				
	Inhalation				
	No specific health warnings noted.				
	Ingestion				
	May cause discomfort if swallowed.				
	Skin contact				
	May cause sensitization by skin contact.				
	Eye contact				
	May cause temporary eye irritation.				
	Health Warnings				
	Product may cause an allergic reaction in hypersensitive persons. Moisture curing process releases a small amount of butanone-2-oxime (MEKO) which can				
	irritate skin and mucous membranes. Prolonged exposure to large quantities of MEKO may cause irreversible damage to health.				
	Route of entry				
	Skin and/or eye contact.				
	Target Organs				
	Skin				
	Medical Symptoms				
	Allergic rash.				
	Medical Considerations				
	Skin disorders and allergies.				
	SECTION 12: ECOLOGICAL INFORMATION				
	Ecotoxicity				
	In cross-linked state not soluble in water. Easily separable from water by filtration.				
<u>12.</u>	1. Toxicity				
	There are no data for the product.				
	Acute Toxicity - Fish LC50 96 hours MEKO 48 mg/l Lepomis macro chirus				
	(Bluegill) Acute Toxicity - Aquatic Invertebrates EC50 48 hours MEKO 750 mg/l Daphnia magna				
<u>12.</u>	2. Persistence and degradability				
	Degradability				
	The product is not readily biodegradable.				
<u>12.</u>	3. Bio accumulative potential				
	Bio accumulative potential				
	Bioaccumulation is unlikely to be significant because of the low water solubility of this product.				
	Partition coefficient Not applicable.				
<u>12.</u>	4. Mobility in soil				
	· ·				

<u>12.</u>

Mobility:

The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product. Waste is classified as hazardous waste.

Disposal to a licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

Waste Class

Recommended EWC Code 08 04 09*

H13 - Sensitising

SECTION 14: TRANSPORT INFORMATION

General, The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

No information required.

14.2. UN proper shipping name

No information required.

14.3. Transporthazardclass(es)

No information required.

14.4. Packing group

No information required.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

No information required.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Dangerous Preparations Directive 1999/45/EC. Regulation (EC) 1907/2006 REACH. Regulation (EC) 1272/2008 CLP.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments

Classification and labelling according to CLP Regulations.

 Revision Date
 29/01/14

 Supersedes date
 18/12/12

 SDS No.
 10408

Risk Phrases In Full

R20 Harmful by inhalation.
R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

R41 Risk of serious damage to eyes.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H315 Causes skin irritation. H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his