Spectrum UltraGrip Kit MMA System White
[Part.1 – Base | Part.2 – Catalyst | Part.3 – Aggregate]

SAFETY DATA SHEET – Part.1

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name	Spectrum UltraGrip Kit MMA System White - Base
Product Number	Part.1 of this document covers Spectrum UltraGrip Kit MMA System White – Base only.
Container Size	18kg

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

Identified Uses	Paint.
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	Meon Ltd. Railside Northarbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 +44 (0) 23 9220 0707 mail@meonuk.com

1.4. Emergency Telephone Number

Emergency telephone	+44 (0) 808 118 1922

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

Flam. Liq. 2, H225, Skin Irrit. 2 - H315 Skin Sens. 1 - H317

Environmental hazards

Not classified

2.2. Label Elements

Hazard pictograms

Signal word	Danger
Named Chemicals on Label	

Contains	methyl methacrylate, n-butyl acrylate, triethyleneglycol dimethyacrylate
H-statement(s)	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction.
P-statement(s)	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing vapour/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with national regulations.EUH066 Repeated exposure may cause skin dryness or cracking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P302+P352 IF ON SKIN: Wash with plenty of water. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

2.3. Other hazards

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

SECTION 3: Composition/information on ingredients

SUBSTANCE [ ] MIXTURE [X]

Dangerous component(s)

Ingredient	Cas-No: EC No:	R-Phrases CLP Hazard Statements	Concentration
n-butyl acrylate	141-32-2 205-480-7	 H226, H332, H315, H319, H317, H335, H412	5.0-10.0%
methyl methacrylate	80-62-6 201-297-1	 H225, H335, H317, H315	5.0-10.0%
triethyleneglycol dimethyacrylate	109-16-0 -	 H317	<1%
N,N-bis-(2-hydroxypropyl)-p-toluidine	38668-48-3 -	 H300, H319, H412	<1%
N,N-dimethyl-p-toluidine	99-97-8 202-805-4		<1%

		H301, H311, H331, H373, H412	
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9		<1%
		H226	
N-methyl-2-pyrrolidone	872-50-4 212-828-1		<1%
		H335, H360D, H319, H315	

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First aid measures

Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

In case of inhalation: Move the exposed person to fresh air at once. 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 personal.

In case of skin contact: Remove contaminated clothing immediately and wash skin with soap and water. Do not use organic solvents.

In case of eye contact: Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention.

In case of ingestion: IF SWALLOWED: Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Keep affected person warm and at rest. Do not induce vomiting.

Self-protection of the first aider: First aid personnel should wear appropriate protective equipment during any rescue.

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

Potential Acute Health Effects

Causes serious eye irritation, can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach, Defatting the skin. May cause skin dryness and irritation. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Over-exposure signs/symptoms

General information: Treat symptomatically

Eye contact: Irritating to eyes.

Ingestion: Harmful: may cause lung damage if swallowed.

Skin contact: Liquid may irritate skin.

Inhalation: May cause respiratory system irritation.

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

Notes to Physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatment: No specific treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Alcohol-resistant foam, CO2, dry powder.

Extinguishing media which must not be used for safety reasons Water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazard Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3. Advice for firefighters

Protective actions during firefighting.	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for Fire fighters	Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Exclude sources of ignition and ventilate the area. Avoid breathing mist or vapour.

6.2. Environmental precautions

Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Collect spillage for reclamation or absorb in vermiculite, dry sand or similar material.

6.4. Reference to other sections

For waste disposal, see Section 1,8 and 13.

SECTION 7: Handling and storage

7.1. Precautions on safe handling

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti static footwear and clothing and floors should be of the conducting type. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid inhalation of vapours/spray and contact with skin and eyes. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Put on appropriate personal protective equipment (See section 8) Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original. Comply with health and safety at work laws. Do not allow to enter drains or watercourses Vapours may form explosive mixture with air.

Advice on general occupational hygiene

Persons with impaired lung function should not handle this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat. Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage class

Flammable liquid storage.

7.3. Specific end uses

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with Occupational Exposure Limits
(UK WELS)

Name	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3	OEL Note
n-butyl acrylate	1	5	26	5	WEL
methyl methacrylate	50	100	146	208	WEL
2-methoxy-1-methylethyl acetate	50	100	548	274	WEL
N-methyl-2-pyrrolidone	75	25	309	103	EH40(UK)

8.2. Exposure controls

Engineering measures	As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. Air-fed

	protective respiratory equipment must be worn by the spray operator, even when good ventilation is provided.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.
Eye/face protection	Chemical splash goggles or face shield. Tight-fitting safety glasses.
Hand protection	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear anti-static protective clothing if there is a risk of ignition from static electricity.
Environmental exposure controls	Avoid release to the environment.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	White
Relative density:	1.77

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2. Chemical stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

May react strongly with oxidising agents.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Oxidising agents.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - dermal

ATE dermal (mg/kg) 200,000.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 126.06

SECTION 12: Ecological information

12.1. Toxicity

No information.

12.2. Persistence and degradability

No information.

12.3. Bioaccumulative potential

Not available.

12.4. Mobility in soil

No information.

12.5. Results of PBT and vPvB assessment

Not available.

12.6. Other adverse effects

No information.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information
The generation of waste should be minimised or avoided wherever possible. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor.
Disposal method
Place waste in labelled, sealed containers. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1 UN number:	1263
14.2 UN proper shipping name	PAINT RELATED MATERIAL
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	No
14.6 Special precautions for user	No
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Control of Substances Hazardous to Health Regulations 2002 (as amended).
Dangerous Substances and Explosive Atmospheres Regulations 2002.
EH40/2005 Workplace exposure limits.
Health and Safety at Work etc. Act 1974 (as amended).
EU legislation
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
15.2 Chemical safety assessment
This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H300 Fatal if swallowed.

H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360D May damage the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

List of Wastes"Acronym & Abbreviation Key:
CLP Classification, Labelling & Packaging Regulation
EC European Commission
EU European Union
US United States
CAS Chemical Abstract Service
EINECS European Inventory of Existing Chemical Substances
REACH Registration, Evaluation, Authorization of Chemicals Regulation
GHS Globally Harmonized System of Classification and Labeling of Chemicals
LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit
ppm Parts per million
mg/m3 Milligrams per cubic meter
TLV Threshold Limit Value
ACGIH American Conference of Governmental Industrial Hygienists
OSHA Occupational Safety & Health Administration
PEL Permissible Exposure Limits
VOC Volatile organic compounds
g/l Grams per liter
mg/kg Milligrams per kilogram
N/A Not applicable
LD50 Lethal dose at 50%
LC50 Lethal concentration at 50%
EC50 Half maximal effective concentration
IC50 Half maximal inhibitory concentration
PBT Persistent bioaccumulative toxic chemical
vPvB Very persistent and very bioaccumulative
EEC European Economic Community
ADR International Transport of Dangerous Goods by Road
RID International Transport of Dangerous Goods by Rail
UN United Nations
IMDG International Maritime Dangerous Goods Code
IATA International Air Transport Association
MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC International Bulk Container

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DELIVERING GREAT SURFACES

SAFETY DATA SHEET – Part.2

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name	Spectrum UltraGrip Kit MMA System White - Catalyst
Product Inclusion	Part.2 of this document covers Spectrum UltraGrip Kit MMA System White – Catalyst only.
Container Size	100g

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

Identified Uses	Hardener
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	Meon Ltd. Railside Northarbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 +44 (0) 23 9220 0707 mail@meonuk.com

1.4. Emergency Telephone Number

Emergency telephone	+44 (0) 808 118 1922

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Org. Perox. CD; H242 Eye Irrit. 2; H319 Skin Sens. 1; H317 Repr. 2; H361f Aquatic Acute 1; H 400 and Aquatic Chronic 3; H412.

Classification according to Directive 67/548/EEC 1999/45/EEC

O; R7 Repr.Cat.3; R62 R43 Xi; R36 N; R50/53

2.2. Label Elements

Hazard pictogram

Signal word	Danger
Hazardous component(s) to be indicated on label	Dibenzoyl peroxide, dicyclohexyl phthalate
H-statement(s)	H242 Heating may cause fire. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H361f Suspected of damaging fertility. H410 Very toxic to aquatic life with long lasting effects.
P-statement(s)	P201 Obtain special instructions before use P210 Keep away from heat/sparks/ open flames/hot surfaces. –No smoking. P220 Keep/ Store away from clothing/ combustible materials. P234 Keep only in original container. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P281 Use personal protective equipment as required. P308+P313 IF exposed or concerned: Get medical advice/ attention. P333+P313 IF skin irritation or rash occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P363 Wash contaminated clothing before reuse. P391 Collect a spillage. P403 Store in a well-ventilated place. P411 Store at temperatures not exceeding …oC/ …of. P420 Store away from other materials.

2.3. Other hazards

Results of PBT and vPvB assessment:

PBT and vPvB not applicable.

SECTION 3: Composition/information on ingredients

SUBSTANCE [ ] MIXTURE [X]

Chemical characterization

Benzoylperoxyde, phlegmated with plasticizer

Hazardous ingredients

Ingredient	Cas-No: EC No: Index No: Reach No:	R-Phrases CLP Hazard Statements	Concentration
Dibenzoyl peroxide	94-36-0 202-327-6 617-008-00-0 01-2119511472-50	E; R3 O; R7 R7 R43 Xi; R36 N; R50/53 Org. Perox. B; H241 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Acute 1; H400	45.0-50.0% by weight
Dicyclohexyl phthalate	84-61-7 201-545-9 - 01-2119978223-34	Repr.Cat. 3; R62 R43 R53 Skin sens. 1; H317 Repr. 2; H361f Aquatic Chronic 3; H412	45.0-50.0% by weight

SECTION 4: First aid measures

Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

General advice	If symptoms persist, call a physician.
In case of inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
In case of skin contact:	IF ON SKIN: Wash with plenty of soap and water. If irritation occurs, seek medical advice/attention.
In case of eye contact:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
In swallowed:	Rinse mouth. DO NOT induce vomiting. Call a physician immediately.

Self-protection of the first aider: None.

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

No information.

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

Notes to Physician: None.

Specific treatment: None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO2), Dry powder, Dry sand, Water spray, Foam
Extinguishing media which must not be used for safety reasons	Halons

5.2. Special hazards arising from the substance or mixture

Exposure hazards	Carbon dioxide (CO2), Carbon monoxide, Benzoic acid, Benzene

5.3. Advice for firefighters

Special protective equipment for firefighting	In the event of fire, wear self-contained breathing apparatus.
Additional information on firefighting	Cool closed containers exposed to fire with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Do not breath dust. Avoid contact with skin and eyes. Use personal protective equipment.

6.2. Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

Not available.

6.5. Additional information

Risk of ignition.

SECTION 7: Handling and storage

7.1. Precautions on safe handling

Wear personal protective equipment. Do not breath dust. Avoid contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage specifications

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

TRGS 510

5.2

Recommended storage temperature

25°C

7.3. Specific end uses

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Great Britain

Name	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3	Source
Dibenzoyl peroxide				5	19
Dicyclohexyl				5	19

DNEL

Dibenzoyl peroxide

Value	Target group	Exposure route	Exposure frequency	Source
11,75 mg/m3	Workers	Inhalation	Long term effects	100
6,6 mg/kg	Workers	Dermal exposure	Long term effects	100
2,9 mg/m3	Consumers	Inhalation	Long term effects	100
3,3 mg/kg	Consumers	Dermal exposure	Long term effects	100
1,65 mg/kg	Consumers	Oral	Long term effects	100

Dicyclohexyl phthalate

Value	Target group	Exposure route	Exposure frequency	Source
35,2 mg/m3	Workers	Inhalation	Long term effects	100
0,5 mg/kg	Workers	Dermal exposure	Long term effects	100

PNEC

Dibenzoyl peroxide

Value	Exposure route	Source
0,000602 mg/l	Freshwater	100
0,338 mg/kg	Freshwater sediment	100
0,0000602 mg/l	Marine water	100
0,0338 mg/kg	Marine sediment	100
0,35 mg/l	STP	100
6,67 mg/kg	Soil	100

Dicyclohexyl phthalate

Value	Exposure route	Source
0,00362 mg/l	Freshwater	100
1,06 mg/kg	Freshwater sediment	100
0,000362 mg/l	Marine water	100
01,06 mg/kg	Marine sediment	100
10 mg/l	STP	100
0,21	Soil	100

8.2. Exposure controls

Engineering measures Ensure adequate ventilation, especially in confined areas.

Respiratory protection Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Recommended filter type: P1

Eye/face protection Tightly fitting safety goggles.

Hand protection Suitable material butyl-rubber nitriles.
Unsuitable material leather gloves

Other skin and body protection No special requirement.

Environmental exposure controls No special requirement.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State: Solid

Colour: Powdered form whitish

Odour: Characteristic

Flammability (solid,gas): Heating may cause a fire

Density: 1,23 g/cm3

Autoinflammability: Not auto-flammable

Decomposition temperature[°C]: 60 °C
Risk of explosion: Risk of dust explosion

9.2. Other information
Bulk density [kg/m3]: 650 kg/m3

SECTION 10: Stability and reactivity

10.1. Reactivity
Thermal decomposition Self-accelerating decomposition temperature (SADT) 60°C.
10.2. Chemical stability
No data available.
10.3. Possibility of hazardous reactions
No data available.
10.4. Conditions to avoid
Avoid shock and friction. Temperature above 25°C can influence the product characteristics.
10.5. Incompatible materials
Rust, Iron, Copper, Acids, Reducing agents.
10.6. Hazardous decomposition products
Benzoic acid, Benzol.

SECTION 11: Toxicological information

Toxicity values
Hazardous ingredients

Name According to EEC	Oral LD50 (RAT)	Dermal LD50 (RAT)	Dermal LD50 (RBT)	Inhale LC50 (RAT)
				Inhale LC0
Dibenzoyl Peroxide	>5000mg/kg			24,3 mg/l (OECD Test Guide-line 403)
				>24,3 mg/l/4H
Dicyclohexyl phthalate	>2001mg/kg			

11.1. Information on toxicological effects
Dibenzoyl peroxide

Skin contact No skin irritation.
Measuring method OECD Test Guideline 404.
Test species rabbit.
Eye contact Eye irritation, revesible innerhalb 21 Tage.
Measuring method OECD Test Guideline 405.
Test species rabbit.
Sensitization Skin sensitization.
Measuring method OECD TG 429.
Test species mouse.
Carcinogenic effects Did not show carcinogenic effects in animal experiments.
Mutagenicity Did not show mutagenic effects in animal experiments.
Reproduction toxicity No toxicity to reproduction.
Other information Not applicable.

Dicyclohexyl phthalate

Skin contact No skin irritation.
Measuring method OECD 439 Skin irritation.
Eye contact No eye irritation.
Measuring method OECD 437 Eye irritation.
Sensitization Skin sensitization.
Mutagenicity Negative.

Reproduction toxicity Tests in some animals may indicate that the technical active ingredient may have embryotoxic activity.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous ingredients

Dibenzoyl peroxide

Organism	Toxicity [mg/l]	Test criterion	Test species	Exposure duration	Measuring method
Fish	0,0602	LC50	Oncorhynchus mykiss (rainbow trout)	96h	OECD TG – l203
Daphnia	0,110	EC50	Daphnia magna (water flea)	48h	OECD TG – l202
Algae	0,0711	EC50	Pseudokirchneriella subcapitata	72h	OECD TG – l201

Dicyclohexyl phthalate

Organism	Toxicity [mg/l]	Test criterion	Test species	Exposure duration	Measuring method
Fish	(>2)	LD50	Orange-red killifish	96h	OECD TG – l203
(NOEC)Daphnia	0,679	EC50	Daphnia magna (water flea)	21day(s)	OECD TG – l202
Algae	(>2)	-	Pseudokirchneriella subcapitata	72h	OECD TG – l201

12.2. Persistence and degradability

Dibenzoyl peroxide

Biodegradable. 68%. Measuring method: OECD 301D/EEC 92/69/V, C.4-E. Duration 28 day(s)

Dicyclohexyl phthalate

Readily biodgradable.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Dicyclohexyl phthalate

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)

12.6. Other adverse effects

According to the results of test of biodegradability this product is considered as being readily biodegradable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions:

Waste code

160903 – peroxides, for example hydrogen peroxide

SECTION 14: Transport information

Transport class

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	3106	3106	3106
14.3 Transport hazard classes	5.2	5.2	5.2
14.2 Description of the goods	ORGANIC PEROXIDE TYPE D, SOLID	ORGANISCHES PEROXID, TYP D, FEST	ORGANIC PEROXIDE TYPE D, SOLID
14.2 UN proper shipping name		ORGANIC PEROXIDE TYPE D, SOLID	Organic peroxide type D, solid
Danger releasing substance	Dibenzoyl peroxide	Dibenzoyl peroxide	Dibenzoyl peroxide

Labels			
Category	2		
Factor	3		
Classification Code	P1		
Tunnel restriction code	D		
14.5 Environmental hazards	U – Environmentally hazardous	U – marine pollutant	U – Environmentally hazardous
EmS		F-J;S-R	
Stowage category		D	

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not relevant.

SECTION 15: Regulatory information

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

Additional regulation Additionally, observe any national regulations!

SECTION 16: Other information

Relevant R- phrases
R3: Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R36: Irritating to eyes.
R43: May cause sensitisation by skin contact.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53: May cause long-term adverse effects in the aquatic environment.
R62: Possible risk of impaired fertility.
R7: May cause fire.

Relevant H-phrases
H241: Heating may cause a fire or explosion.
H242: Heating may cause a fire.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H361f: Suspected of damaging fertility.
H400: Very toxic to aquatic life.
H412: Harmful to aquatic life with long lasting effects.

List of Wastes"Acronym & Abbreviation Key:
BMGV Biological Monitoring Guidance Values are given in Table 2 of EH40/2005 Workplace exposure limits.
Sk Can be absorbed through the skin. Dermal absorption may lead to systemic toxicity.
CLP Classification, Labelling & Packaging Regulation
EC European Commission
EU European Union
US United States
CAS Chemical Abstract Service
EINECS European Inventory of Existing Chemical Substances
REACH Registration, Evaluation, Authorization of Chemicals Regulation
GHS Globally Harmonized System of Classification and Labeling of Chemicals
LTEL Long term exposure limit
STEL Short term exposure limit

OEL Occupational exposure limit
ppm Parts per million
mg/m3 Milligrams per cubic meter
TLV Threshold Limit Value
ACGIH American Conference of Governmental Industrial Hygienists
OSHA Occupational Safety & Health Administration
PEL Permissible Exposure Limits
VOC Volatile organic compounds
g/l Grams per liter
mg/kg Milligrams per kilogram
N/A Not applicable
LD50 Lethal dose at 50%
LC50 Lethal concentration at 50%
EC50 Half maximal effective concentration
IC50 Half maximal inhibitory concentration
PBT Persistent bioaccumulative toxic chemical
vPvB Very persistent and very bioaccumulative
EEC European Economic Community
ADR International Transport of Dangerous Goods by Road
RID International Transport of Dangerous Goods by Rail
UN United Nations
IMDG International Maritime Dangerous Goods Code
IATA International Air Transport Association
MARPOL International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC International Bulk Container

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.

SAFETY DATA SHEET – Part.3

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name	Aggregate 0.9–1.4mm Buff Bauxite
Product Inclusion	Part.3 of this document covers Aggregate 0.9–1.4mm Buff Bauxite only.
Container Size	NA

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

Identified Uses	Refractory raw material, road surfacing aggregate, welding.
Uses advised against	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	Meon Ltd. Railside Northarbour Spur Portsmouth PO6 3TU +44 (0) 23 9220 0606 +44 (0) 23 9220 0707 mail@meonuk.com

1.4. Emergency Telephone Number

Emergency telephone	+44 (0) 808 118 1922

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Product definition : UVCB

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

Not classified.

Ingredients of unknown toxicity: Percentage of the mixture consisting of ingredients of unknown toxicity: 100%

Ingredients of unknown toxicity: Percentage of the mixture consisting of ingredients of unknown hazards to aquatic environment: 100%

Classification according to Directive 67/548/EEC

Not classified.

See section 16 for the full text of the R phrases or H statements declared above.

See section 11 for more detailed information on health effects and symptoms.

2.2. Label Elements

Hazard pictograms

Not applicable.

Signal word

No signal word

Hazard statements

No known significant effects or critical hazards.

Precautionary statements

Not applicable

2.3. Other hazards

Substance meets the criteria for PBT according to regulation (EC) N° 1907/2006, Annex XIII. Not applicable
Substance meets the criteria for vPvB according to regulation (EC) N° 1907/2006,Annex XIII. Not applicable
Other hazards which do not result in classification : Dust contains respirable crystalline silica. Prolonged and or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimize or eliminate dust generation. The product contains less than 1 % w/w RCS (respirable crystalline silica) as determined by the SWERF method. The respirable crystalline silica content can be measured using the "Size-Weighted Respirable Fraction- SWERF" method. All details about the SWERF method is available at www.crystallinesilica.eu .

SECTION 3: Composition/information on ingredients

SUBSTANCE [ ] MIXTURE [X]

Substance/mixture : Multi constituent substance

Ingredient	EC No: Cas No:	R-Phrases CLP Hazard Statements	Concentration
Bauxite(*)	296-579-9 92797-42-7		100%
Aluminium Oxide(A)	215-691-6 1344-28-1		>85%
Quartz(SiO2)(B)	238-878-4 14808-60-7		<10%
Titanium oxide(B)	236-675-5 13463-67-7		<5%
Diiron trioxide(B)	215-168-2 1309-37-1		<3%

Thre are no additional ingredients present which, within the current knowledge of LEADER UK, are classified and contribute to the classification of the substance and hence require reporting in this section.
[*] Substance
[A] Constituent
[B] Impurity

SECTION 4: First aid measures

Show this safety data sheet to the doctor in attendance.

4.1. Description of first aid measures

In case of inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

In case of skin contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.ash skin with soap and water. or Rinse with water. In the event of a visible skin change or other complaints, seek medical advise (show label or SDS where possible).

In case of eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for any to remove any contact lenses. Get medical attention if irritation occurs.

In case of ingestion: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Self-protection of the first aider: No action shall be taken involving any personal risk or without suitable training.

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

Potential acute health effects

No known significant effects or critical hazard.

Over-exposure signs/symptoms
No specific data
4.3. Indication of any immediate medical attention and special treatment needed
Notes to physician
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatment
No specific treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Extinguishing media which must not be used for safety reasons	None known.

5.2. Special hazards arising from the substance or mixture

Specific hazard	No specific hazard.

5.3. Advice for firefighters

Special protective measures in fire	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action should be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk.
Special 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. Clothingfor fire-fighters (including helmets, protective boots and gloves) conforming to European Standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel :
No action shall be taken involving any personal risk or without suitable training .
Keep unnecessary and unprotected personnel from entering .Do not touch or walk through split material . Avoid breathing dust. Put on appropriate personal protective equipment. No smoking.
For emergency responders :
If specialised clothing is required to deal with the spillage, take note of any information in section 8 on suitable or unsuitable materials. See also information in “for non-emergency personnel”.
6.2. Environmental precautions
Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways or air).
6.3. Methods and material for containment and cleaning up
Small spill :
Move containers from spill area. Vacuum or sweep up material and place in a designated labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill :
Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in designated labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note see section 1 for emergency contact information and section 13 for waste disposal.
6.4. Reference to other sections
See section 1 for emergency contact information
See section 8 for information on appropriate personal protective equipment.
See section 13 for additional waste treatment information .

SECTION 7: Handling and storage

7.1. Precautions on safe handling

Put on appropriate personal protective equipment (see section 8). Avoid breathing dust. Avoid creating dusty conditions and prevent wind dispersal. Prevent dust accumulation. Use only with adequate ventilation . Wear appropriate respirator when ventilation is inadequate.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in segregated and approved area. Store in original container and protect from direct sunlight in a dry, cool and well ventilated area away from incompatible materials (see section 10) and food and drink. 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.

7.3. Specific end uses

No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with Occupational Exposure Limits (OEL)

Name	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3	OEL Note
Aluminium oxide				4(Resp.) 10(Inh.)	WEL
Titanium oxide				4(Resp) 10(Inh)	WEL
Quartz				0.1(Resp)	WEL
Diiron trioxide				4(Resp) 10(Inh)	WEL

Recommended monitoring procedures : If this product ingredient 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 necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available

Predicted effect concentrations

No PECs available

8.2. Exposure controls

Engineering measures
No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products before eating, smoking and using 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 closed to the workstation location .

Respiratory equipment
Use a properly fitted air-purifying or air feed 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 safe respirator.

Eye/face protection
Safety eyewear complying with an approved standard should be used when a risk assessment indicated this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced , use dusts goggles.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicated this is necessary.

Body protection	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.
Skin protection	Appropriate footwear and any additional skin protection measures 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	Emissions from ventilation oe 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.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical state	Solid {powder, granular particles or aggregate}
Colour	Yellow/ Beige/ Grey
Odour	Odourless
Melting point/freezing point	>2000°C
Relative density	>3.1g/cm3
Solubility(ies)	Insoluble in water

9.2. Other information

None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No specific test data related to reactivity available for this product or Its ingredients.

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

No specific data.

10.5. Incompatible materials

Not applicable.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition Products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Name According to EEC	Oral LD50 (RAT)	Inhale LD50 (RAT)	Dermal LD50 (RBT)
Titanium dioxide	>60g/kg		

Sensitiser	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Cancerogenicity	No known significant effects or critical hazards.
Reproductive toxicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
STOT SE	Not available.
Aspiration hazard	Routes of entry anticipated. Oral, inhalation
Potential acute health effects	No known significant effects or critical hazards.
Symptoms related to the physical, chemical and toxicological characteristics	No known significant effects or critical hazards
Delayed and immediate effects and also chronic effects from short and long term exposure	Not available.

Potential chronic health effects Not available

SECTION 12: Ecological information

12.1. Toxicity

Ingredient	Result	Species	Exposure
Titanium dioxide	Acute EC50 5.83mg/l Fresh water	Algae-Pseudokirchneriella Subsantita-Exponential growth phases	72h
	Acute EC50>10mg/l Fresh water	Dapnia-Daphnia magna<24hours	48h
	Acute LC50 5.5ppm Fresh water	Daphnia-Dapnia magna-Juvenille(Fledging,hatchling,weanling)<24h	48h
	Acute LC50> 10mg/l Marine water	Fish-Fundulus hetteroclitus	96h
	Chronic NOEC 1 ppm Fresh water	Daphnia-Saphnia magna – Juvenille(Fledging,hatchling,weanling)<24h	48h
	Chronic NOEC 500ppm Fresh water	Daphnia-Saphnia magna – Juvenille(Fledging,hatchling,weanling)<24h	48h

Conclusion/summary: No known significant effects or critical hazards.

12.2. Persistence and degradability

Not readily biodegradable.

12.3. Bioaccumulative potential

No information.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Not applicable.

12.6. Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product

Methods of disposal:

The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. 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.

Hazardous waste:

Within the present knowledge of the supplier, this product is not regarded as
Hazardous waste, as defined by EU Directive 91/689EEC.

Packaging

Methods of disposal:

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration of landfill should only be considered when recycling ie not feasible .

Special precautions:

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil , waterways, drains and sewers.

SECTION 14: Transport information

Not regulated and not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) n° 1907/2006 (REACH)

Annex XIV – List of substances subject to authorization .

Substances of very high concern

None of the components are listed

Annex XVII – Restrictions on the manufacture, : Not applicable

Placing on the market and use of certain dangerous substances / mixtures.

Other EU regulations

Europe inventory : All components are listed or exempt

Black List Chemicals : Not listed

Priority List Chemicals : Not listed

Integrated pollution prevention : Not listed
and control list (IPPC)- Air

Integrated pollution prevention : Not listed
and control list (IPPC)- Water

International regulations

Chemical Weapons : Not listed
Convention List Schedule I Chemicals

Chemical Weapons : Not listed
Convention List Schedule II Chemicals

Chemical Weapons : Not listed
Convention List Schedule III Chemicals

15.2. Chemical Safety assessment

Not applicable

15.3. Registration status

Exempt

SECTION 16: Other information

Risk Phrases In Full

Not classified

Hazard Statements In Full

Not classified

List of Wastes"Acronym & Abbreviation Key:

CLP Classification, Labelling & Packaging Regulation
EC European Commission
EU European Union
US United States
CAS Chemical Abstract Service
EINECS European Inventory of Existing Chemical Substances
REACH Registration, Evaluation, Authorization of Chemicals Regulation
GHS Globally Harmonized System of Classification and Labeling of Chemicals
LTEL Long term exposure limit
STEL Short term exposure limit
OEL Occupational exposure limit
ppm Parts per million
mg/m3 Milligrams per cubic meter
TLV Threshold Limit Value
ACGIH American Conference of Governmental Industrial Hygienists
OSHA Occupational Safety & Health Administration
PEL Permissible Exposure Limits
VOC Volatile organic compounds
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