



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **UCRETE Part 1**  
(For UCRETE FL, HF100, HF 100RT, MF, MF AS, TZ, TZ AS, TZ Coving, TZ Grout, UD200, UD 200 N, UD200 SR, WR, DP Basecoat B4, DP Basecoat B6, DP Basecoat B9, DP Topcoat, DP Topcoat AS, CP Basecoat B6 AS, Primer LC, Primer LC AS, Primer SC, Primer SCF)

Company: BASF Construction Chemicals Malaysia Sdn Bhd  
Address: No. 8, Jalan Keluli 2  
Kawasan Perindustrian Bukit Raja  
41050 Klang  
Selangor Darul Ehsan  
Malaysia

Telephone number: +603 3344 3388  
Facsimile: +603 3344 2288

Emergency telephone numbers: +603 3344 3388

### 2. HAZARDS IDENTIFICATION

Safety hazards: May cause sensitisation by skin contact  
Health hazards: n.d.  
Environmental hazards: Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Water-based emulsion  
Hazardous Ingredients: Pine Oil  
CAS No: 8006-64-2  
EC No: 232-350-7  
Hazard symbols: n.d.  
R-phrases: R10 N; R 51/53 R43 Xn; R 20/21/22 Xn; R65 Xi; R 36/38  
For the working of the listed risk phrases, refer to section 16.  
% Concentration: 2.5 to 10%

### 4. FIRST AID MEASURES

#### Immediate treatment

Eye contact: Remove contact lenses, keep eyelids open. Flush with plenty of water (10 to 15 mins). Call a physician.

Skin contact: Immediately remove all contaminated clothing. Wash away with soap and water and rinse. Do not use solvents or thinners.

## MATERIAL SAFETY DATA SHEET

Inhalation:	Take the casualty to area with fresh air and keep warm. Let casualty rest. If irregular / no breathing, artificial respiration. If unconsciousness, lateral position and call a physician.
Ingestion:	Do not induce vomiting! Never make an unconscious person vomit or drink fluid. Rinse mouth thoroughly. Contact a doctor immediately.

### 5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Alcohol resistant foam, CO <sub>2</sub> , powders and water spray
Unsuitable extinguishing media:	Waterjet
Special risk:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
Protective equipment:	Appropriate breathing apparatus may be required.
Additional information	Cool endangered containers with water in case of fire. Do not allow the quenching water into the sewage system.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Remove ignition sources. Provide for sufficient ventilation. Do not inhale the vapour. Refer to protective measures listed in sections 7 and 8.
Environmental precautions:	Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.
Method for cleaning up:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to regulations (see section 13). Clean preferably with a detergent; avoid use of solvents.

### 7. HANDLING AND STORAGE

Handling:	The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Avoid contact with skin and eyes. Do not inhale the vapour. Do not eat or drink during work, no smoking. Comply with the health and safety at work laws..
Requirements for storage rooms:	Containers should be kept dry and sealed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Additional information:	Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep away from ignition sources – No smoking.
Materials not to be stored together:	Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. <b>Storage class (VCI) : 10</b>

## MATERIAL SAFETY DATA SHEET

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical measures: Provide adequate ventilation. Where reasonably 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 solvent vapour below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn.

#### Personal protection

Respiratory protection: If workplace limits are exceeded, a gas mask approved for this purpose must be worn.

Eye protection: Use safety glasses.

Hand protection: Nitrilerubber  $\geq 0.35$  mm  $\geq 480$  min. By using other gloves with a lower endurance, change them more often. After washing hands replace lost skin fat by fat containing skin creams.

Body protection: Light protective clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid

Colour: White

Odour: Soap like

Freezing temperature: n.a.

Flash point:  $> 100^{\circ}\text{C}$  (DIN 53213)

P1: n.a.

EPL (in): n.a.

Vapour pressure: n.a.

Vapour density: n.a.

Relative density: n.d.

Solubility: Insoluble

pH value: n.a.

Viscosity: n.a.

### 10. STABILITY AND REACTIVITY

Hazardous reactions (conditions to avoid): Stable under recommended storage and handling conditions (See section 7).

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

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



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 11. TOXICOLOGICAL INFORMATION

#### Experience on practice

In case of contact with the product: danger of resorption through the skin, irritation of skin/mucous membranes.

#### Additional toxicological information

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EC).

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Aquatic toxicity

Specification:	Toxicity to fish (Pine Oil : CAS No: 8006-64-2)
Parameters:	LC50 <i>Leuciscus idus</i>
Value /dosage:	89 mg/l
Test period:	48 hr

Specification:	Toxicity to daphnia (Pine Oil : CAS No. 8006-64-2)
Parameters:	EC50 Species: <i>Daphnia magna</i> Straus 1820
Value / dosage:	24.5 mg/l
Test period:	48 hr

#### Additional information

General ecological information: Do not empty into waters or drains

### 13. DISPOSAL CONSIDERATIONS

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Unclean packaging must be disposed of in the same manner as the medium.

### 14. TRANSPORT INFORMATION

#### Road transport ADR / RID

Class:	n.a.
Number/letter:	n.a.
Warning sign:	n.a.



The Chemical Company

## MATERIAL SAFETY DATA SHEET

Hazard No: n.a.  
UN No: n.a.

### Maritime / Air transport IMDG

UN No: n.a.  
PG: n.a.  
Class: n.a.  
IMDG code page: n.a.

### 15. REGULATORY INFORMATION

Classification: Xi - Irritant  
Hazard labels: Pine Oil : CAS No. 8006-64-2  
R-phrases:

R43 : May cause sensitisation by skin contact.  
R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases:

S61 : Avoid release to the environment. Refer to special instructions / Safety data sheets  
S2 : Keep out of the reach of children.  
S35 : This material and its container must be disposed of in a safe way.  
S36/37 : Wear suitable protective clothing and gloves.

### National regulatory information:

Additional information: The usual precautionary measures for the handling of chemicals have to be observed. In case of multi component products, please consider the information given for the other components as well.

### Regulation on inflammable liquids (VbF):

VbF-Class: Not dangerous according to VbF

### Water pollution classification:

Class: 1 according VwVwS



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 16. OTHER INFORMATION

#### Restrictions on use recommended by the manufacturer

Coating material – use only according to the Technical Information of the product.

#### Further information

We have no knowledge or control over the user's working conditions. However, the product may not be used for any purpose other than that specified in chapter 16 unless written consent has been obtained. The user is responsible for the observance of all required statutory provisions.

#### Relevant changes

02. Hazardous components 15. Hazard-determining components of labelling

#### R-Phrases of components

10	Flammable
20/21/22	Harmful by inhalation, in contact with skin and if swallowed
36/38	Irritating to eyes and skin
43	May cause sensitisation by skin contact.
51/53	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
65	Harmful : may cause lung damage if swallowed.

#### Key:

n.a. = not applicable

n.as. = not assigned

n.d. = no data

Reason for Issue: New format based on National Code of Practice for the preparation of MSDS – 2<sup>nd</sup> edition [NOHSC:2011(2003)]. Change of company name.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. All information contained in this MSDS is as accurate and up-to-date as possible. No warranty expressed or implied is made as to its accuracy, reliability or completeness.



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **UCRETE Part 2**  
(For UCRETE FL, HF100, HF 100RT, MF, MF AS, TZ, TZ AS, TZ Coving, TZ Grout, UD200, UD 200 N, UD200 SR, WR, DP Basecoat, DP Basecoat AS, DP Topcoat, DP Topcoat AS, CP Basecoat B6 AS, Primer LC, Primer LC AS, Primer SC, Primer SCF)

Company: BASF Construction Chemicals Malaysia Sdn Bhd  
Address: No. 8, Jalan Keluli 2  
Kawasan Perindustrian Bukit Raja  
41050 Klang  
Selangor Darul Ehsan  
Malaysia

Telephone number: +603 3344 3388  
Facsimile: +603 3344 2288

Emergency telephone numbers: +603 3344 3388

### 2. HAZARDS IDENTIFICATION

Safety hazards: May cause sensitization by inhalation and skin contact.  
Health hazards: Harmful by inhalation. Irritating to eyes, respiratory system and skin.  
Environmental hazards: n.d.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Mixture of diphenylmethane diisocyanates and polymer constituents  
Hazardous Ingredients: Diphenylmethane diisocyanate : isomers and homologues  
CAS No: 9016-87-9  
EC No: n.d.  
Hazard symbols: Xn Xi Xi  
R-phrases: R42/43 R20 R36/37/38  
% Concentration: 50 – 100%

### 4. FIRST AID MEASURES

#### Immediate treatment

Eye contact: Remove contact lenses, keep eyelids open. Flush with plenty of water (10 to 15 mins). Call a physician.

Skin contact: Immediately remove all contaminated clothing. Wash away with soap and water and rinse. Do not use solvents or thinners.

Inhalation: Take the casualty into the fresh air and keep warm. Keep at rest. Irregular breathing / no breathing: artificial respiration. Unconsciousness: lateral position – call a doctor.

Ingestion: Do not induce vomiting! Never make an unconscious person vomit or drink fluid. Rinse mouth thoroughly. Contact a doctor immediately.

## MATERIAL SAFETY DATA SHEET

### 5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Alcohol resistant foam, CO <sub>2</sub> , powders and water spray
Unsuitable extinguishing media:	Waterjet
Special risk:	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. During fire, carbon monoxide, nitrogen oxide, isocyanate vapour and traces of hydrogen cyanide may be given off.
Protective equipment:	Appropriate breathing apparatus may be required.
Additional information	Cool endangered containers with water in case of fire. Do not allow the quenching water into the sewage system.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Remove ignition sources. Provide for sufficient ventilation. Do not inhale the vapour. Refer to protective measures listed in sections 7 and 8.
Environmental precautions:	Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.
Method for cleaning up:	Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to regulations (see section 13). Subsequently put in the waste container. Do not seal (CO <sub>2</sub> may be given off).

### 7. HANDLING AND STORAGE

Handling:	Provide for fresh air ventilation. Do not inhale the vapour. Avoid contact with skin and eyes. Do not eat or drink during work – no smoking. Comply with the health and safety at work laws.
Requirements for storage rooms:	Containers should be kept dry and sealed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Additional information:	Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating over 50°C. Avoid cooling to under 0°C
Materials not to be stored together:	Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. <b>Storage class (VCI) : 10</b>

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical measures:	Provide adequate ventilation. Where reasonably 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 solvent vapour below the OEL (= Occupational Exposure Limit), suitable respiratory protection must be worn. Allergies and persons who have problems with the respiration tract are not recommended to work with this product.
---------------------	--



## MATERIAL SAFETY DATA SHEET

Exposure limits: Diphenylmethane Diisocyanate : Isomers and homologes (CAS No. 9016-87-9)

Specification : Threshold limit value (GB)

Value : 0.02 mg/m<sup>3</sup> / 8 hr

Remarks : MEL / TWA

Specification : Threshold limit value (GB)

Value : 0.07 mg/m<sup>3</sup> / 15 min

Remarks : MEL / STEL

### Personal protection

Respiratory protection: By spraying: air fed respirator. By other operations than spraying: in well ventilated areas, air fed respirators could be replaced by a combination of charcoal filter and particulate filter mask.

Eye protection: Use safety glasses.

Hand protection: Butylrubber  $\geq$  0.5 mm  $\geq$ 480 min. After washing hands replace lost skin fat by fat containing skin creams. By using other gloves with a lower endurance, change them more often.

Body protection: Light protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid  
Colour: Dark brown  
Odour: Earthy, musty  
Boiling point (1013 hPa): 350 °C  
Flash point (DIN 53213):  $> 200^{\circ}\text{C}$   
Ignition temperature:  $> 400^{\circ}\text{C}$   
Vapour pressure:  $< 0.0001$  hPa (50 °C)  
Vapour density (20°C): 1.24 g/cm<sup>3</sup>  
Relative density: n.d.  
Solvent separation test(20°C): n.a. (20 °C)  
pH value: n.a.  
Viscosity: 90 – 300mPa (23 °C)

## 10. STABILITY AND REACTIVITY

Hazardous reactions (conditions to avoid): Stable under recommended storage and handling conditions (See section 7).

Materials to avoid: Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Exothermic reaction with amines and alcohols. In contact with water (moisture) CO<sub>2</sub> is formed which leads to an excess pressure in closed containers.

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

## MATERIAL SAFETY DATA SHEET

### 11. TOXICOLOGICAL INFORMATION

#### Toxicological tests

##### LD50/LC50 values that are relevant for classification

Specification:	LC-50
Routes of entry:	inh
Test species:	Rat
Value / dosage:	Approximately 490 mg/m <sup>3</sup>
Test period:	41 hr

Specification:	LD-50
Routes of entry:	oral
Test species:	Rat
Value / dosage:	> 15 g/kg

#### Experience on practice

Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL (=Occupational Exposure Limit). Repeated exposure may lead to permanent respiratory disability. Delayed reactions possible (breathing problems, coughs, asthma)

#### Additional toxicological information

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EC).

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

Is converted in connection with water in a solid, insoluble and inert polyurea, liberating CO<sub>2</sub>

##### Aquatic toxicity

Specification:	Toxicity to fish (Pine Oil : CAS No: 8006-64-2)
Parameters:	LC0 Danio Rerio
Value /dosage:	>= 1,000 mg/l
Test period:	961 hr

Specification:	Toxicity to daphnia
Parameters:	EC50
	Species: Daphnia magna Straus 1820
Value / dosage:	>= 1,000 mg/l
Test period:	241 hr



The Chemical Company

## MATERIAL SAFETY DATA SHEET

Specification:	Toxicity to bacteria
Parameters:	EC50
	Species : Bacteria
Value / dosage:	>= 100 mg/l
Test period :	31 hr

### Additional information

General ecological information: Do not empty into waters or drains

### 13. DISPOSAL CONSIDERATIONS

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Unclean packaging must be disposed of in the same manner as the medium.

#### Recommendation

In accordance with local official regulations. Pass on to an appropriate incinerating plant or depository or recycling.

### 14. TRANSPORT INFORMATION

#### Road transport ADR / RID

Class:	n.a.
Number/letter:	n.a.
Warning sign:	n.a.
Hazard No:	n.a.
UN No:	n.a.

#### Maritime / Air transport IMDG

UN No:	n.a.
PG:	n.a.
Class:	n.a.
IMDG code page:	n.a.



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 15. REGULATORY INFORMATION

Classification: Xn - Harmful  
Hazard labels: Diphenylmethane Diisocyanate: Isomeres and Homologes (CAS No.:9016-87-9)  
R-phrases:  
R42 / 43 : May cause sensitisation by inhalation and skin contact.  
R20 : Harmful by inhalation  
R36/37/38 : Irritating to eyes, respiratory system and skin.  
S-phrases:  
S2 : Keep out of the reach of children.  
S35 : This material and its container must be disposed of in a safe way.  
S36/37 : Wear suitable protective clothing and gloves.  
S 51 : Use only in well-ventilated areas  
S46 : If swallowed, seek medical advice immediately and show this container or label.  
S64 : If swallowed, rinse mouth with water (only if the person is conscious)  
S63 : In case of accident by inhalation, remove casualty to fresh air and keep at rest.  
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

#### Special designation for certain preparations

91 : Contains isocyanates.

#### National regulatory information:

#### Regulation on inflammable liquids (VbF):

VbF-Class: Not dangerous according to VbF

#### Water pollution classification:

Class: 1 according KBwS



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 16. OTHER INFORMATION

#### Restrictions on use recommended by the manufacturer

Coating material – use only according to the Technical Information of the product.

#### Further information

We have no knowledge or control over the user's working conditions. However, the product may not be used for any purpose other than that specified in chapter 16 unless written consent has been obtained. The user is responsible for the observance of all required statutory provisions.

#### Relevant changes

15 S- phrases

#### R-Phrases of components

20	Harmful by inhalation
36/37/38	Irritating to eyes, respiratory system and skin.
42/43	May cause sensitisation by inhalation and skin contact.

#### Key:

n.a. = not applicable  
n.as. = not assigned  
n.d. = no data

Reason for Issue: New format based on National Code of Practice for the preparation of MSDS – 2<sup>nd</sup> edition [NOHSC:2011(2003)]. Change of company name.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. All information contained in this MSDS is as accurate and up-to-date as possible. No warranty expressed or implied is made as to its accuracy, reliability or completeness.





The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name: **UCRETE Part 3**  
(For UCRETE FL, HF100, HF 100RT, MF, MF AS, TZ, TZ AS, TZ Coving, TZ Grout, UD200, UD 200 N, UD200 SR, WR, DP Basecoat B4, DP Basecoat B6, DP Basecoat B9, DP Topcoat, DP Topcoat AS, CP Basecoat B6 AS)

Company: BASF Construction Chemicals Malaysia Sdn Bhd  
Address: No. 8, Jalan Keluli 2  
Kawasan Perindustrian Bukit Raja  
41050 Klang  
Selangor Darul Ehsan  
Malaysia

Telephone number: +603 3344 3388  
Facsimile: +603 3344 2288

Emergency telephone numbers: +603 3344 3388

### 2. HAZARDS IDENTIFICATION

Safety hazards: Risk of serious damage to eyes  
Health hazards: n.d.  
Environmental hazards: n.d.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization:	Mineral fillers	
Hazardous Ingredients:	Portland Cement	Calcium Hydroxide
CAS No:	65997-15-1	1305-62-0
EC No:	266-043-4	215-137-3
Hazard symbols:	Xi	Xi
R-phrases:	R41, R36, R38	R41, R38
% Concentration:	25-5%	2.5 – 10%

### 4. FIRST AID MEASURES

#### Immediate treatment

Eye contact: Remove contact lenses, keep eyelids open. Flush with plenty of water (10 to 15 min). Call a physician.

Skin contact: Wash away with soap and water and rinse

Inhalation: Take the casualty into the fresh air and keep warm. Call a doctor, should the air passages be affected.

Ingestion: Contact a doctor immediately. Keep at rest. Do not induce vomiting.

## MATERIAL SAFETY DATA SHEET

### 5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Not combustible under normal conditions
Unsuitable extinguishing media:	Waterjet
Special risk:	Appropriate breathing apparatus may be required.
Protective equipment:	Appropriate breathing apparatus may be required.
Additional information	Cool endangered containers with water in case of fire. Do not allow the quenching water into the sewage system.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Provide for sufficient ventilation. Refer to protective measures listed in sections 7 and 8.
Environmental precautions:	Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

### 7. HANDLING AND STORAGE

Handling:	Do not eat or drink during work- no smoking. Comply with the health and safety at work laws.
Requirements for storage rooms:	Containers should be kept dry and sealed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Additional information:	Always keep in containers of same materials as the original one. See also instructions on the label. Avoid heating and direct sunlight.
Materials not to be stored together:	n.a.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Technical measures:	Provide adequate ventilation. Where reasonably 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 below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.
Exposure limits:	Portland cement (<2ppm of Chrom VI)
	Specification : TRGS 900 (max. limit in the atmosphere at the workplace)
	Parameter : measured as the inhaleable fraction
	Value: 5mg/m <sup>3</sup>
	Specification : TLV/TWA (GB)
	Value: 10mg/m <sup>3</sup> / 8h
	Category: INH



## MATERIAL SAFETY DATA SHEET

Specification : TLV/TWA (GB)

Value: 4ml/m<sup>3</sup> / 8h

Category: RESP

Calcium Hydroxide

Specification : TLV/TWA (GB)

Value: 5mg/m<sup>3</sup> / 8h

Category: RESP

Respiratory protection: If workplace limits are exceeded, a gas mask approved for this purpose must be worn.

Eye protection: Use safety glasses.

Hand protection: Nitrile rubber  $\geq 0.35\text{mm}$   $> =480$  min. Use protective gloves. After washing hands, replace lost skin fat by fat containing skin creams. By using other gloves with a lower endurance, change them more often.

Body protection: Personnel should wear protective clothing and all parts of the body should be washed after contact. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at neck and wrists through contact with the powder is avoided.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Powder
Colour:	Coloured
Odour:	None
Freezing temperature:	n.a.
Boiling point:	n.a.
Melting point:	n.a.
Flash point:	n.a. (dry solid)
P1:	n.a.
EPL (in):	n.a.
Vapour pressure:	n.a.
Vapour density:	n.a.
Relative density:	n.d.
Solubility:	Insoluble
pH value:	11-13
Viscosity:	n.a.

### 10. STABILITY AND REACTIVITY

Hazardous reactions (conditions to avoid):	Stable under recommended storage and handling conditions (See section 7). Protect against moisture and water.
Materials to avoid:	Reactions with acids: development of heat
Hazardous decomposition products:	n.d.



The Chemical Company

## MATERIAL SAFETY DATA SHEET

### 11. TOXICOLOGICAL INFORMATION

Experience on practice: Skin: "tanning", irritation. Eye contact: irritation  
Additional toxicological information: The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EC)/

### 12. ECOLOGICAL INFORMATION

#### Additional information

Ecotoxicity: Do not empty into waters or drains.

### 13. DISPOSAL CONSIDERATIONS

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner as the medium.

### 14. TRANSPORT INFORMATION

Class: n.a.  
Number/letter: n.a.  
Warning sign: n.a.  
Hazard No: n.a.  
UN No: n.a.

#### Maritime / Air transport IMDG

UN No: n.a.  
PG: n.a.  
Class: n.a.  
IMDG code page: n.a.

### 15. REGULATORY INFORMATION

Warning sign: Danger ; Irritant  
R-phrases 41 : Risk of serious damage to eyes  
38 : Irritating to skin  
S-phrases 2 Keep out of the reach of children  
35 This material and its container must be disposed of in a safe way.  
39 Wear eye / face protection



The Chemical Company

## MATERIAL SAFETY DATA SHEET

- 46 If swallowed, seek medical advice immediately and show this container or label.
- 64 If swallowed, rinse mouth with water (only if the person is conscious).
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 24/25 Avoid contact with skin and eyes

### National regulatory information

Regulation on inflammable liquids (VbF) Not dangerous according to Vb F  
Water pollution classification: Class : 1 according VwVwS

### 16. OTHER INFORMATION

Key:

n.a. = not applicable  
n.as. = not assigned  
n.d. = no data

Reason for Issue: New format based on National Code of Practice for the preparation of MSDS – 2<sup>nd</sup> edition [NOHSC:2011(2003)]. Change of company name.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request. All information contained in this MSDS is as accurate and up-to-date as possible. No warranty expressed or implied is made as to its accuracy, reliability or completeness.

