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SECTION 1 CHEMICAL PRODUCT AND IDENTIFICATION

COMPANY	USG UK Ltd 1 Swan Road South West Industrial Estate Peterlee, Co. Durham SR8 2HS, England Tel: +44 (0) 191 586 1121
PRODUCT(S)	USG SHEETROCK® Brand Setting-Type Joint Compounds: DURABOND® 5; DURABOND® 20; DURABOND® 25; DURABOND® 25; DURABOND® 45; DURABOND® 90; DURABOND® 210 and DURABOND® 300
CHEMICAL FAMILY	A mixture of plaster of Paris and minerals
SYNONYMS	A mixture of Calcium Sulfate Hemihydrate (CaSO ₄ •½H ₂ O) and minerals

SECTION 2 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is not expected to produce any unusual hazards during normal use. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. When mixed with water, this material hardens and becomes very hot – sometimes quickly. **DO NOT** attempt to make a cast enclosing any part of the body using this material.

Label Elements:

Classification: The product is not classified as hazardous under Chemicals Hazardous Information and Packaging for Supply (CHIPS 2000).

Risk Phrases: Irritating to eyes, respiratory system and skin (R36/37/38)

Safety Phrases: In case of insufficient ventilation, wear suitable respiratory equipment. Wear eye/face protection. (S38/39)

POTENTIAL HEALTH EFFECTS**ACUTE :**

Inhalation	Dust exposures generated during the handling of the product may irritate eyes, skin, nose, throat, and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician.
Eyes	Direct contact can cause mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician.
Skin	When mixed with water, this material hardens and becomes very hot – sometimes quickly. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Direct, prolonged or repeated contact with the skin may cause irritation. Rinse with water until skin is free of material to avoid irritation, then wash skin thoroughly with mild soap and water. Repeated exposure may dry skin.
Ingestion	Unlikely to occur, but if ingested may cause gastric disturbances if swallowed. Plaster of paris is non-toxic, however, ingestion of a sufficient quantity could lead to mechanical obstruction of the gut,



MATERIAL SAFETY DATA SHEET

MSDS # 60-205-DBD_EU

USG SHEETROCK® Brand Setting-Type Joint Compounds

Page 2 of 7

DURABOND®

especially the pyloric region. See First Aid Measures Ingestion (Section 4).

CHRONIC:

Inhalation

Testing of dust from USG plaster of paris has not detected respirable crystalline silica. Exposures to respirable crystalline silica are not expected during the normal use of this product; however, actual levels must be determined by workplace hygiene testing. The weight percent of respirable crystalline silica has not been measured in this product.
Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer. The development of silicosis may increase the risks of additional health effects. The risk of developing silicosis is dependent upon the exposure intensity and duration.
Prolonged and repeated breathing of respirable mica dust may cause lung disease (pneumoconiosis). The extent and severity of lung injury correlates with the length of exposure and dust concentration.

Eyes

No known effect.

Skin

Repeated contact may dry the skin, causing cracking or dermatitis. Sensitive individuals may develop an allergic dermatitis.

Ingestion

No known effect.

TARGET ORGANS: Eyes, skin and respiratory system.

PRIMARY ROUTES OF ENTRY: Inhalation, eyes and skin contact.

CARCINOGENICITY CLASSIFICATION OF INGREDIENT(S) All substances listed are associated with the nature of the raw materials used in the manufacture of this product and are not independent components of the product formulation. All substances, if present, are at levels well below regulatory limits. See Section 11 : Toxicology Information for detailed information

MATERIAL

IARC

International Agency for Research on Cancer (World Health Organization)

Crystalline silica

1

1- Carcinogenic to humans

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

USG SHEETROCK® Brand Setting-Type Joint Compounds DURABOND® is primarily composed of plaster of Paris (CAS 26499-65-0) (>60%), limestone (CAS 1317-65-3)(<20%) and mica (CAS 12001-26-2)(<10%). The remaining content is composed of vinyl alcohol polymer (CAS 9002-89-5) and attapulgite (CAS 12174-11-7)(<5%). Trace levels (<2%) of crystalline silica (CAS 14808-60-7) may be associated with the mineral content in this product.

SECTION 4 FIRST AID MEASURES

FIRST AID PROCEDURES

Inhalation

Remove to fresh air. Leave the area of dust exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician.

Eyes

To prevent mechanical irritation due to particulate in the eyes, flush thoroughly with water for 15 minutes. If irritation persists, consult physician.

Skin

Wash with mild soap and water. A commercially available hand lotion may be used to treat dry skin areas. If skin has become cracked, take appropriate action to prevent infection and promote healing. If irritation persists, consult physician.

Ingestion

This product is not intended to be ingested or eaten. If gastric disturbance occurs, call physician. This



product contains gypsum plaster. Plaster of paris hardens and, if ingested, may result in obstruction of the gut, especially the pyloric region. Drinking gelatin solutions or large volumes of water may delay setting. If gastric disturbance occurs, call physician.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.

NOTES TO PHYSICIAN: Treatment should be directed at the control of symptoms and the clinical condition.

SECTION 5 FIRE FIGHTING MEASURES

General Fire Hazards	None known.		
Extinguishing Media	Water or use extinguishing media appropriate for surrounding fire.		
Special Fire Fighting Procedures	Wear appropriate personal protective equipment. See section 8.		
Unusual Fire and Explosion Hazards	None known.		
Hazardous Combustion Products	Above 1450° C - decomposes to calcium oxide (CaO) and sulfur dioxide (SO ₂). Above 800° C – limestone may decompose to calcium oxide (CaO) and carbon dioxide (CO ₂).		
Flash Point	Not determined	Auto Ignition	Not determined
Method Used	Not determined	Flammability Classification	Not determined
Upper Flammable Limit (UFL)	Not determined		
Lower Flammable Limit (LFL)	Not determined	Rate of Burning	Not determined

SECTION 6 ACCIDENTAL RELEASE MEASURES

CONTAINMENT: No special precautions. Wear appropriate personal protective equipment. See section 8.

CLEAN-UP: Use normal clean up procedures. If dry, shovel or sweep up material from spillage and place collected material into a container for recovery or waste disposal. Avoid dust generation. Avoid inhalation of dust and contact with eyes and skin. Wear appropriate protective equipment. Maintain proper ventilation. If vacuum is used to collect dust, use an industrial vacuum cleaner with a high efficiency air filter. If sweeping is necessary, use dust suppressant. Do not use compressed air for clean up. These procedures will help minimize potential exposures. If washed down, may plug drains. If already mixed with water, scrape up and place in container.

DISPOSAL: Dispose of material in accordance with regulations. Never discharge directly into sewers or surface waters without evaluating all affected ecosystems. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

SECTION 7 HANDLING AND STORAGE



HANDLING: Avoid dust contact with eyes. Wear the appropriate eye protection against dust (See Section 8). Minimize dust generation and accumulation. Avoid breathing dust. Wear the appropriate respiratory protection against dust in poorly ventilated areas and if OES is exceeded (see Section 8). Use good safety and industrial hygiene practices.

STORAGE: Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities (see Section 10). Dew point conditions or other conditions causing presence of liquid will harden this material during storage. Store in tightly closed containers. Protect product from physical damage.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards (OES) based on 8hr TWA

Plaster of Paris (CaSO ₄ •½H ₂ O)	10 mg/m ³ (Total Inhalable); 4 mg/m ³ (Respirable) (as gypsum)
Limestone	10 mg/m ³ (Total Inhalable); 4 mg/m ³ (Respirable)
Mica	10 mg/m ³ (Total Inhalable); 1 mg/m ³ (Respirable)

Maximum Exposure Limit (MEL) based on 8hr TWA

Crystalline Silica	0.3 mg/m ³ 8hr TWA (Total Inhalable)
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Refer to current edition of HSE (Health and Safety Executive) EH40 "Occupational Exposure Limits"

ENGINEERING CONTROLS: Provide ventilation sufficient to control airborne dust levels. If user operations generate airborne dust, use ventilation to keep dust concentrations below permissible exposure limits. Where general ventilation is inadequate, use process enclosures, local exhaust ventilation, or other engineering controls to control dust levels below permissible exposure limits.

RESPIRATORY PROTECTION: Special ventilation typically not necessary, but may be desirable in specific work conditions. Use mechanical or local exhaust ventilation to keep levels below TLV. If engineering controls are not possible, wear a half face mask to EN Class FFP2s, if mist/dust exceed permissible exposure limits.

OTHER PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face	Wear eye protection (safety glasses or goggles) to avoid possible eye irritation.
Skin	Wear gloves and protective clothing to prevent repeated or prolonged skin contact. Barrier creams or skin lotion may be applied to face, neck, wrist and hands when skin is exposed to help prevent drying of skin.
General	Selection of Personal Protective Equipment will depend on environmental working conditions and operations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Off white	Vapor Density (Air = 1)	Not Determined
Odor	Low to no odor	Specific Gravity (H₂O = 1)	2.5
Odor Threshold	Not Determined	Solubility (H₂O)	Unlimited dispersibility
Physical State	Solid (powder)	Partition Coefficient	Not Determined
pH @ 77°F (25 °C)	~ 7	Auto-ignition Temperature	Not Determined



Melting Point	Not applicable	Decomposition Temperature	Not Determined
Freezing Point	Not Applicable	Viscosity	Not Applicable
Boiling Point	Not Applicable	Particle Size	Varies
Flash Point	Not Determined	Bulk Density	~ 55-70 lb/ft ³
Evaporation Rate (BuAc = 1)	Not Determined	Molecular Weight	Mixture
Upper Flammable Limit (UFL)	Not Determined	VOC Content	Zero
Lower Flammable Limit (LFL)	Not Determined	Percent Volatile	Zero
Vapor Pressure (mm Hg)	Not Applicable		

SECTION 10 CHEMICAL STABILITY AND REACTIVITY

STABILITY	Stable.
CONDITIONS TO AVOID	Contact with incompatibles.
INCOMPATIBILITY	Acids. Exposure to water and acids must be supervised because the reactions are vigorous and produce large amounts of heat.
HAZARDOUS POLYMERIZATION	Will not occur.
HAZARDOUS DECOMPOSITION	Above 1450° C - decomposes to calcium oxide (CaO) and sulfur dioxide (SO ₂). Above 800° C – limestone may decompose to calcium oxide (CaO) and carbon dioxide (CO ₂).

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

The sulfate ion has caused gastro-intestinal disturbance in humans following large oral doses. Limited studies involving the repeated inhalation of an (unspecified) calcium sulfate failed to identify any particular target organs in monkeys, rats and hamsters.

No evidence of mutagenicity was found in Ames bacterial tests.

Plaster of Paris: Oral LD50 rat > 5000 mg/kg
 Dermal LD50 – None Determined
 Skin Irritation LD50 – None Determined
 Eye Irritation LD50– None Determined

LD₅₀: Not Available for product.
 LC₅₀: Not Available for product.

CHRONIC EFFECTS / CARCINOGENICITY:

Crystalline silica: Testing of dust from USG plaster of paris has not detected respirable crystalline silica. Exposures to respirable crystalline silica are not expected during the normal use of this product; however, actual levels must be determined by workplace hygiene testing. The weight percent of respirable crystalline silica has not been measured in this product.

Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer. The development of silicosis may increase the risks of additional health effects. The risk of developing silicosis is dependent upon the exposure intensity and duration.

In June, 1997, IARC classified crystalline silica (quartz and cristobalite) as a human carcinogen. In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans was not detected in all industrial



circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs.

Mica: Prolonged and repeated breathing of respirable mica dust may cause lung disease (pneumoconiosis). The extent and severity of lung injury correlates with the length of exposure and dust concentration.

**SECTION 12
ECOLOGICAL INFORMATION**

ENVIRONMENTAL TOXICITY: This product has no known adverse effect on the ecology.

Ecotoxicity value Not determined.

**SECTION 13
DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Dispose of material in accordance with regulations. Never discharge directly into sewers or surface waters without evaluating all affected ecosystems. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

**SECTION 14
TRANSPORT INFORMATION**

Material not restricted for transportation regulations

Shipping Name Same as product name

Hazard Class Not classified.

UN/NA # None. Not classified.

Packing Group None.

Label (s) Required Not applicable.

GGVSec/MDG-Code Not classified.

ICAO/IATA-DGR Not applicable.

RID/ADR None.

ADNR None.

**SECTION 15
REGULATORY INFORMATION**

Label Information

Classification: The product is not classified as hazardous under Chemicals Hazardous Information and Packaging for Supply (CHIPS 2000).

Risk Phrases: Irritating to eyes, respiratory system and skin (R36/37/38)

Safety Phrases: In case of insufficient ventilation, wear suitable respiratory equipment. Wear eye/face protection. (S38/39)

These products should be used in accordance with the recommendations shown in USG current technical literature.

This Material Safety Data Sheet should not be considered a replacement for the users own workplace risk assessment which is a requirement of The Control of Substances Hazardous to Health (COSHH) Regulations 2002.

**ΔWARNING!**

When mixed with water, this material hardens and becomes very hot – sometimes quickly. **DO NOT** attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb.

Dust created from product may cause eye, skin, nose, throat or upper respiratory irritation. Avoid inhalation of dust and eye contact. Use in a well-ventilated area. Wear a NIOSH/MSHA-approved respirator when dusty. Use proper ventilation to reduce dust exposure. Prolonged and repeated breathing of respirable mica dust may cause lung disease (pneumoconiosis). Wear eye protection. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call physician. Wash thoroughly with soap and water after use. Do not ingest. If ingested, call physician.

Product safety information: (800) 507-8899 or www.usg.com

KEEP OUT OF REACH OF CHILDREN.

SECTION 16 OTHER INFORMATION

Key/Legend

CAS	Chemical Abstracts Service (Registry Number)
IARC	International Agency for Research on Cancer
PPE	Personal Protection Equipment
UN/NA#	United Nations/North America number

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