



MATERIAL SAFETY DATA SHEET

(REACH regulation (CE) n°1907/2006 - n°453/2010)

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

1.1. Product identifier

Name: DUROSTONE (product code: 101), DUROSTONE Plus (product code: 102)
 DUROTOP/DUROCOLOR (product code: 103)
 DUROTOP Plus/DUROCOLOR Plus (product code: 104)
 DUROTOP KS/DUROCOLOR KS (product code: 105)
 DUROTOP KS Plus/DUROCOLOR KS Plus (product code: 106)
 DUROSTONE KVARC (product code: 107)
 DUROMETAL (product code: 108), DUROMETAL AE (product code: 109)
 DUROSTAR (product code: 110)

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

Construction product. Hardeners for industrial floors.

1.3. Details of the supplier of the safety data sheet

Registered company name: DUROSTONE Kft
 Address : 2038 Sóskút Ipari park, 3508/23
 Telephone : +36 1 488 00 66
 Email : info@durostone.hu

1.4. Emergency telephone number :

Sürgősségi szolgálat: Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)
 Cím: H-1097 Budapest, Nagyvárad tér 2.
 Telefon: +36 80 201 199 (ingyenes, éjjel-nappal hívható), +36 1 476 6464

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Skin irritation, Category 2.
 Serious eye damage, Category 1.
 Skin sensitisation, Category 1.
 Specific target organ toxicity (single exposure), Category 3.
 This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
 This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Possibility of serious lesions to the eyes.
 Possibility of skin sensitisation. The mixture may also irritate the skin and prolonged contact may aggravate this effect.
 Possibility of irritation by inhalation and skin.
 This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.
 This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS07



GHS05

Danger

Signal Word : DANGER

Durostone Ltd.

Revision: 01.01.2014

Product identifiers :

EC 266-043-4 CEMENT PORTLAND

Hazard statements :

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H335 May cause respiratory irritation.

Precautionary statements - Prevention :

P261 Avoid breathing mist.
 P264 Wash hands thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - Response :

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P362 Take off contaminated clothing and wash before reuse.

Precautionary statements - Storage :

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary statements - Disposal :

P501 Dispose of contents/container at a disposal facility in accordance with local regulations.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Hazard symbols :



Irritant

Contains :

EC 266-043-4 CIMENT PORTLAND, PRODUITS CHIMIQUES

Risk phrase :

R 43 May cause sensitisation by skin contact.
 R 37/38 Irritating to respiratory system and skin.
 R 41 Risk of serious damage to eyes.

Safety phrase:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S 60 This material and its container must be disposed of as hazardous waste.
 S 22 Do not breathe dust.

2.3. Other hazards

In use, may form flammable/explosive dust-air mixture.
 Avoid all direct skin contact with the wet cement. Do not kneel in the wet cement.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

3.2. Mixtures Composition :

Identification	Name	Classification	%
CAS: 65997-15-1 EC: 266-043-4	CEMENT PORTLAND	GHS07, GHS05, Dgr STOT SE3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Xi; R37/38, R41, R43	25 <= x % < 40
CAS: 14808-60-7 EC: 238-878-4	QUARTZ (SiO2)		25 <= x % < 80
CAS: 1344-28-1 EC: 215-691-6	ALUMINIUM OXIDE (AL2O3)		10 <= x % < 25
CAS: 13463-67-7 EC: 236-675-5	TITANIUM DIOXIDE		0 <= x % < 2.5

SECTION 4: FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures**In the event of exposure by inhalation :**

In the event of massive inhalation of dust, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label. If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. Seek medical attention immediately, showing the label.

4.2. Most important symptoms and effects, both acute and delayed No

data available.

4.3. Indication of any immediate medical attention and special treatment needed No

data available.

SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction In the event of a fire, use :

- sprayed water or water mist
- foam
- powder
- carbon dioxide (CO2)

Unsuitable methods of extinction In

the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke.

5.3. Advice for firefighters No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

For non fire-fighters

Avoid any contact with the skin and eyes.

Avoid inhaling dust.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For fire-fighters

Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming) : do not generate dust.

6.4. Reference to other sections No data available.**SECTION 7: HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

7.1. Precautions for safe handling Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention :

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling dust.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions. In all cases, recover emissions at source.

Avoid eye contact with this mixture at all times.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities No data available.**Storage**

Keep the container tightly closed in a dry, well-ventilated place

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s) No data available.**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Occupational exposure limits :**

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
14808-60-7	0.05 mg/m ³	-	-	-	R
65997-15-1	10 mg/m ³	-	-	-	-
1344-28-1	10 mg/m ³	-	-	-	-
13463-67-7	10 mg/m ³	-	-	-	-

- Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS	VME :	VME :	Excess	Notes
65997-15-1	-	5 mg/m ³ E	-	DFG

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- France (INRS - ED984:2007 and French Order of 30/06/2004) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
14808-60-7	-	0.1 A	-	-	-	25
1344-28-1	-	10	-	-	-	-
13463-67-7	-	10	-	-	-	-

- Switzerland (SUVA 2009) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Temps :	RSB :
14808-60-7	0,15 a	-	-	-	-	-
1344-28-1	3a	-	24 a	-	4x15	-
13463-67-7	3a	-	-	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, 2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
14808-60-7	0.3 mg/m3	-	-	-	R
65997-15-1	10 mg/m3	-	-	-	TI
1344-28-1	10 mg/m3	-	-	-	TI
13463-67-7	10 mg/m3	-	-	-	TI

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- **Eye / face protection** Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

Prescription glasses are not considered as protection.

Provide eyewash stations in facilities where the product is handled constantly.

- **Hand protection**

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Recommended properties :

- Impervious gloves in accordance with standard EN374

- **Body protection** Avoid skin contact.

Wear suitable protective clothing.

These clothes shall be chosen to ensure there is no inflammation or irritation of the skin at the neck and wrist by contact with the powder Suitable type of protective clothing :

Wear protective clothing against solid chemicals and particles suspended in the air (type 5) in accordance with standard EN13982-1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- **Respiratory protection**

Avoid breathing dust.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Type of FFP mask: Wear a disposable half-mask dust filter in accordance with standard EN149.

Category: - FFP1

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties****General information :**

Physical state:	powder or dust.
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Important health, safety and environmental information

pH of the substance or preparation :	not relevant.
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The pH is impossible to measure or its value is not relevant.

pH (aqueous solution) :	12 - 13
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Flash point interval :	not relevant.
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Vapour pressure :	not relevant.
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Density :	1.6
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Water solubility :	Soluble.
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9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section

7. 10.3. Possibility of hazardous reactions No data available.**10.4. Conditions to avoid**

Avoid :

- formation of dusts
- humidity

Dusts can form an explosive mixture with air.

10.5. Incompatible materials No data available.**10.6. Hazardous decomposition products** No data available.**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.

Respiratory tract irritation may occur, together with symptoms such as coughing, choking and breathing difficulties.

May cause an allergic reaction by skin contact.

Substances**Acute toxicity :**

TITANIUM DIOXIDE (CAS: 13463-67-7)

Oral route :

DL50 > 20000 mg/kg

Species : Rat (recommended by the CLP)

Dermal route :

DL50 > 10000 mg/kg

Species : Rabbit (recommended by the CLP)

Inhalation route :

CL50 > 6.8 mg/l

Species : Rat (recommended by the CLP)

Mixture

No toxicological data available for the mixture.

Respiratory or skin sensitisation :

Contains chromium (VI). May cause an allergic reaction.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 14808-60-7 : IARC Group 1 : The agent is carcinogenic to humans.

CAS 13463-67-7 : IARC Group 2B : The agent is possibly carcinogenic to humans.

SECTION 12: ECOLOGICAL INFORMATION**12.1. Toxicity****Substances**

No aquatic toxicity data available for the substances.

Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK) :

WGK 2 (VwVwS vom 27/07/2005, KBws) : Hazardous for water.

SECTION 13: DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14: TRANSPORT INFORMATION

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 IMDG 2010 - ICAO/IATA 2011).

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****- Particular provisions:**

No data available.

- German regulations concerning the classification of hazards for water (WGK):

Germany: WGK 2 (VwVwS vom 27/07/2005, KBws)

15.2. Chemical safety assessment

No data available.

SECTION 16: OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Title for H, EUH and R indications mentioned in section 3:

H226	Flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
R 10	Flammable.
R 51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 65	Harmful: may cause lung damage if swallowed.
R 66	Repeated exposure may cause skin dryness or cracking.
R 67	Vapors may cause drowsiness and dizziness.

Abbreviations:

ADR:	European agreement concerning the international carriage of dangerous goods by Road.
IMDG:	International Maritime Dangerous Goods.
IATA:	International Air Transport Association.
ICAO:	International Civil Aviation Organization
RID:	Regulations concerning the International carriage of Dangerous goods by rail.
WGK:	Wassergefährdungsklasse (Water Hazard Class).
GHS02:	Flamme
GHS07:	Exclamation mark
GHS08:	Health hazard
GHS09:	Environment