



SAFETY DATA SHEET

SECTION 1:**IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier**Product name: **LimeX45, or LimeX70**

Other means of identification:	EC-No.: 932-124-4
REACH registration number:	01-2119557879-14-0016

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

Soil and land improver and conditioner, biomass co-firing ingredient, material for the construction industry.

1.3. Details of the supplier of the safety data sheet

Company: **British Sugar PLC, 1 Samson Place, Hampton, Peterborough, PE7 8QJ, England**
Telephone : +44 (0)1733 563171
Grower Services +44 (0)800 090 2376
E-mail: limex@britishsugar.com

1.4. Emergency telephone number

Emergency telephone No.: +44 (0)1733 563171, or +44(0) 800 090 2376 (office hours)

SECTION 2: HAZARDS IDENTIFICATION

Not classified as dangerous/hazardous according to Regulation (EC) No 1272/2008 and Directive 67/548/EEC

2.2. Label elements

None required according to Regulation (EC) No 1272/2008.

2.3. Other hazards

No special hazards known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Calcium dihydroxide
precipitated with carbon dioxide during sugar juice purification
and containing 30-55% water

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact: Irrigate thoroughly with water. If discomfort persists obtain medical attention
Inhalation: Remove from exposure. If symptoms persist, obtain medical attention
Skin contact: Wash off thoroughly with soap and water
Ingestion: Wash out mouth thoroughly with water. In severe cases obtain medical attention.

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

No toxic effects are to be expected when handled properly.

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

Treat symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Any extinguishing media that suits the local environment.

5.2. Special hazards arising from the substance or mixture

Not combustible. May release carbon dioxide in a fire.

5.3. Advice for fire-fighters

Exercise caution when fighting any chemical fire.
Only trained personnel should attempt to tackle a fire.
Do not stay in dangerous zone without respiratory protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing. Avoid generation of dusts.

6.2. Environmental precautions

No special precautions necessary.

6.3. Methods and material for containment and cleaning up

Wear appropriate protective clothing.
Carefully sweep or shovel up and dispose of in accordance with local regulations.
Wash area with water to remove residues

6.4. Reference to other sections

See Section 8 for advice on protective equipment and Section 13 for recommendations on disposal

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Do not breathe dust.
Avoid contact with skin, eyes and clothing.
Wash hands after working with substance.
Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store at room temperature (15 to 25°C recommended).

Keep well covered and protected from rain.

7.3. Specific end use(s)

Soil and land improver and conditioner, biomass co-firing ingredient, material for the construction industry.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Calcium carbonate:	OES
Total inhalable dust.	Long term: 10 mg/m ³
Respirable dust.	Long term: 4 mg/m ³
DN(M)EL –	workers
Inhalation:	Long term systemic: 10mg/m ³

8.2. Exposure controls

As appropriate to the situation and the quantity handled.

Engineering methods to control or prevent exposure are preferred if feasible

- Ventilation:	The need for local extraction to control dust must be assessed. Use only in a well ventilated area in any case
- Respirator:	Dust mask type FFP3 (EN149) required when dusts are generated
- Gloves:	Most rubber or plastic gloves are suitable
- Eye Protection:	Chemical resistant goggles
- Other Precautions:	Overalls - when handling large quantities

Environmental exposure controls:

Dispose of rinse water in accordance with local and national regulations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:

Form:	Friable solid
Colour:	Light brown
Odour:	Ranges from almost odourless to mildly organic. If LimeX becomes anaerobic then odour can be moderately organic, dissipating with aerobic transition.
Melting temperature:	>450°C (decomposition)
Density: (g/ml)	Typical, ex-factory LimeX70 – 1.0-1.1, LimeX45 1.4-1.6
Solubility in water:	Practically insoluble (0.016g/l, 20°C)
pH value:	Typically pH8 > pH9
Flammability:	Not combustible.
Decomposition temperature:	>450°C

9.2. Other information

Additional data relevant to Trading Standards and the liming materials schedule from The Fertiliser Regulations 1991 (SI No.2197):

Parameter	LimeX45	LimeX70
Neutralising Value (NV as %CaO)	22%	25%
Sieve testing: % passing 5.00mm	99%	99%
Sieve testing: % passing 3.35mm	97%	97%
Sieve testing: % passing 150 um	85%	85%
P ₂ O ₅ : kg/tonne	7	10
MgO: kg/tonne	5	7
SO ₃ : kg/tonne	4	6

LimeX typically contains 3-5kg total N/tonne, or which <5% is readily available. On this basis there is no claim for nitrogen benefit.

9.3 Typical composition

Product	CaCO ₃ %	Organic %	Silicates %	Water %
LimeX45	40	13	4	45
LimeX70	52	15	5	30

These values are not absolute. There will be a range for each constituent

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	Low reactivity
10.2. Chemical stability	Stable.
10.3. Possibility of hazardous reactions	Violent reactions possible with acids, liberating carbon dioxide. Liberation of ammonia can occur when pH is increased > 9.20, such as by mixing with strong alkalis – for example, cement. The possibility of reaction with other substances cannot be excluded.
10.4. Conditions to avoid	Strong heating.
10.5. Incompatible materials	acids
10.6. Hazardous decomposition products	Produces carbon dioxide at >600°C

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:	LD50: >2000mg/kg oral, rat (data on analogous product) LD50: >2000mg/kg dermal, rabbit. (data on analogous product) LC50: >3mg/l/4hr inhalation, rat. (data on analogous product)
Skin corrosion/irritation:	No irritation. (method OECD439) (in vitro)
Serious eye damage/irritation:	No irritation. (method OECD438) (in vitro)
Respiratory or skin sensitisation:	Not a skin sensitiser (data on analogous product)
Germ cell mutagenicity:	Negative (method OECD471) (data on analogous product)
Carcinogenicity:	No indication of carcinogenicity (data on analogous product)
Reproductive toxicity:	Negative (method OECD422) (data on analogous product)

Further toxicological information

Sugar factory lime is primarily composed of inorganic substances.
The major constituent is calcium carbonate, along with sand and a small amount of other inorganic salts (including calcium salts) and the remainder is composed of organic plant material.
Sugar factory lime is not classified for human health.
Of its components, only calcium oxalate is classified as acutely toxic via the oral and dermal routes (category 4); however, this does not affect the overall classification of sugar factory lime.
As a result, it is considered that the properties of SFL are governed by those of calcium carbonate.
It is therefore considered appropriate for this data to be used for read-across purposes for toxicological endpoints.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity	Exceeds maximum solubility of the substance. (data on analogous product)
12.2. Persistence and degradability	The substance is inorganic and therefore will not undergo degradation.
12.3. Bioaccumulative potential	Bioaccumulation is not expected.
12.4. Mobility in soil	Not applicable
12.5. Results of PBT and vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB
12.6. Other adverse effects	None

Remarks:

Sugar factory lime is primarily composed of inorganic substances.
The major constituent is calcium carbonate, along with sand and a small amount of other inorganic salts (including calcium salts) and the remainder is composed of organic plant material.
None of the components of sugar factory lime carry a classification for physical chemical properties or the environment and therefore sugar factory lime is not classified as hazardous to the environment.
Since the major component of sugar factory lime is calcium carbonate, it can therefore be assumed that the properties of sugar factory lime will be governed by those of calcium carbonate.
It is therefore considered appropriate for this data to be used for read-across purposes for the ecotoxicological endpoints.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods**

Dispose of through an authorised waste contractor to a licensed site, or contact your local waste disposal authority, or British Sugar's Agricultural Helpdesk for additional guidance.
Contaminated product may be classified as hazardous or special waste, and as such would be covered by regulations which vary according to location.
Dispose of any packaging through an authorised waste contractor.
Empty and cleaned containers can be reused in conformity with regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number	Not subject to transport regulations.
14.2. UN proper shipping name	Not applicable
14.3. Transport hazard class(es)	Not applicable
14.4. Packing group	Not applicable
14.5. Environmental hazards	Not applicable
14.6. Special precautions for user	Not applicable
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable

SECTION 15: REGULATORY INFORMATION

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

Regional Regulations

Compiled according to **Regulation (EU) 453/2010**

Local Regulations

Within the UK, the use of this material must be assessed under the Control of Substances Hazardous to Health (**COSHH**) regulations.

For details of other generally applicable Legislative/Regulatory Instruments, you should contact your National Helpdesk.

A list of those Helpdesks may be found at http://echa.europa.eu/help/nationalhelp_contact_en.asp

15.2. Chemical safety assessment

A chemical safety assessment has been performed, but no exposure scenario is attached as the substance is not classified as hazardous.

SECTION 16: OTHER INFORMATION

Source information

In-house data
REACH registration data

Abbreviations:

DN(M)EL	Derived no (minimum) effect level
OES	Occupational exposure standard
PBT	Persistent, bioaccumulative and toxic substance
PNEC	Predicted no effect concentration
STP	Sewage treatment plant
vPvB	Very persistent and very bioaccumulative