

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: GO-Dense K50

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

Fertilizer

1.3 Company identification

Global Crop Improvement Company Ltd
20-22 Wenlock Road, London, N1 7GU, UK
Tel: +44 (0)1480 810137
Email: office@gcic-global.com

1.4 Emergency phone number

+44 (0)1480 810137

2. HAZARD IDENTIFICATION

2.1 Classification of the substance in accordance with Regulation EC 1272/2008 (CLP)

Eye irrit. 2
Skin irrit. 2
STOT SE 3

2.2 Label elements



Signal words
Attention

Hazard statements
H315, H319, H335

Precautionary statements
P280, P305+351+338, P302+352, P332+337+313, P362, P312

2.3 Other hazards

According to the provisions of Annex XII of Regulation (CE) No 1907/2006, the substance does not meet the criteria for identification as PBT or vPvB.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Name	% w/w	CAS	IUPAC	Index number	REACH registration number	Regulation classification 1272/2008
Potassium carbonate	49	584-08-7	Potassium carbonate	Not available	01-2119532646-36-XXXX	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335

EDTA	1.5	60-00-4	Ethylene diamine tetracetic acid	607-429-00-8	Not available	Eye Irrit. 2; H319
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3.2 Mixture

Not applicable.

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation

Remove the patient from the contaminated area, outdoors, warm, lying and resting. If not breathing do the artificial respiration. If breathing is difficult, give oxygen. Always seek medical advice.

Eye contact

Wash them with water for at least 30 minutes. Seek medical advice immediately.

Skin contact

Wash thoroughly for at least 15 minutes. Remove contaminated clothing and shoes. Immediately go to medical services.

Ingestion

Do not induce vomiting. If conscious, give water to drink and keep warm. If unconscious or convulsing, lay him down and keep warm and at rest. Not drink or eat. Seek medical advice immediately.

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

Acute effects

Inhalation: respiratory tract irritation.

Skin contact: Irritant to skin contact.

Eye contact: Irritation of connective tissue.

Ingestion: Irritation of the mouth and oesophagus.

Delayed effects

It can irritate the airways and in large quantities can damage the kidneys.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Recommended extinguishing methods

Abundant water preferably in powdered form. Other extinguishing agents are equally suitable.

Extinguishing methods that should not be used

Avoid direct water stream.

5.2 Special hazards arising from the substance or mixture

Toxic fumes (nitrous oxides, carbon monoxide and carbon dioxide) can be formed.

5.3 Advice for firefighters

Use self-contained breathing apparatus and fire protection, in addition to protective clothing against splashes.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes, skin and respiratory system. No act without the proper protective equipment (see section No.8).
Keep staff that does not have protective clothing, and place away from upwind.

6.2 Environmental precautions

Prevent the product from entering sewers or surface waters. If the product came to a natural watercourse, inform the Civil Protection authorities.

6.3 Methods and material for containment and cleaning up

Collect leaking product in clean plastic, carbon steel or stainless steel containers. The product cannot be collected must be diluted with water and absorbed with sand.
Move absorbent products to landfill or secure storage to be treated by an authorized waste manager.

6.4 Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Operating and storage locals must be kept adequately ventilated, keeping the VLA below the limits stated in section 8.
Do not smoke, eat or drink when handling the product. Before handling the product ensure that the container used is clean and adequate.
Keep well identified and labelled containers.
Do not return product to the storage tank or other containers.
Avoid contact with acids, aluminium, zinc and alloys.

7.2 Conditions for safe storage, including any incompatibilities

Keep closed the containers or the vessels. Incompatible with aluminium, zinc and their alloys.

7.3 Specific end use(s)

Not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component: Potassium carbonate
CAS: 584-08-7
Limit exposition value:
VLA-ED- PNCOF (not classified insoluble particles)
Respirable fraction 10 mg/m³
Respirable fraction 3 mg/m³ (INSHT)
TLV-TWA- PNCOF (not classified insoluble particles)
Respirable fraction 10 mg/m³
Respirable fraction 3 mg/m³ (ACGIH)

	Industrial	Consumer
Derivative ISQ - DNEL - Oral	Not available	Not available
Derivative ISQ - DNEL - Inhalation	10 mg/m ³	10 mg/m ³
Derivative ISQ - DNEL - Dermal	16 mg/cm ²	8 mg/cm ²
Derivative ISQ - PNEC	Not available	

Component: EDTA
CAS: 60-00-4
Limit exposition value: Not available

			Industrial		Consumer	
Derivative ISQ - DNEL - Oral			Not available		25 mg/kg pc/day	
Derivative ISQ - DNEL - Inhalation			2.5 mg/m ³		1.5 mg/m ³	
Derivative ISQ - DNEL - Dermal			Irritant		Irritant	
Derivative	Water	Air	Soil	Microbiology	Sediment	Oral
ISQ – PNEC	Sweet: 2.2 mg/L Marine: 0.2 mg/L Intermittent emissions: 1.2 mg/L	Not available	0.72 mg/kg	43 mg/L	Not available	Not available

8.2 Exposure controls

Breathing protection

Use mask when spraying.

Hand protection

Gloves for chemical hazards (EN 374).

Eye protection

For dust and liquid droplets use full frame glasses (EN 166).

Body and skin protection

Anti-acid suit or plastic apron.

Control of exposure to the environment

See section 6.2.

Hygiene controls

Not available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Liquid
Odour: Odourless
Colour: Yellow
pH: 12.6
Melting point: Not available
Boiling Point: Not available
Flash point: Non-flammable
Flammability: Not flammable
Lower Explosive Limit: Not available
Upper Explosive Limit: Not available
Vapour pressure at 20°C: Not available
Vapour density: Not available
Relative density: 1.5 g/cc
Solubility: Soluble
Partition coefficient (n-octanol/water): Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: Not available
Viscosity: Not available
Explosive properties: Not explosive
Oxidizing properties: Not oxidising

9.2 Other Information

Not available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

EDTA: Strong reactions with strong oxidants and strong bases.

10.2 Chemical stability

Stable under normal conditions of storage and use.

10.3 Possibility of hazardous reactions

Unknown

10.4 Conditions to avoid

See section 7.

10.5 Incompatible materials

Acids, aluminum, zinc and their alloys.

10.6 Hazardous decomposition products

It is broken down into acids to evolve carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.
Splatters in the eyes can cause irritation and reversible damage.

a) acute toxicity;

Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	OECD 401 US EPA US EPA	Rat Rabbit Rat	Oral Cutaneous Inhalation	LD50>2000 mg/kg p.c. LD50>2000 mg/kg p.c. LC50>4.96 mg/L air
EDTA	60-00-4	-	Rat	Oral	LD50= 2580 mg/kg

b) corrosion/irritation;

Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	-	Human Rabbit	Cutaneous Ocular	Skin irritant. Category 2 Eye irritant. Category 2
EDTA	60-00-4	-	-	Cutaneous	Slightly irritant

c) sensitisation;

Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	- US EPA	- Guinea pig	Respiratory Cutaneous	No data available Non-sensitising
EDTA	60-00-4	-	-	Respiratory	Irritation of mucous membranes, coughing and breathlessness.

d) toxicity through repeated doses;

Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	- OECD 412	Rat -	Oral Inhalation	NOAEL= 2667 mg/kg p.c. NOAEC= 0,062 mg/L air
EDTA	60-00-4	-	-	-	Absorbing large amounts

					can damage the kidneys.
e) carcinogenicity;					
Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	-	Rat	Oral	NOAEL=2667 mg/kg p.c.
EDTA	60-00-4	-	-	-	Not available
f) mutagenicity;					
Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	OECD 471, 473 and 476	-	-	Not mutagenic
EDTA	60-00-4	-	-	-	Not available
g) reprotoxic;					
Component	CAS	Method	Species	Via	Result
Potassium carbonate	584-08-7	OECD 414	Rats	Oral	NOAEL=180 mg/kg p.c.
EDTA	60-00-4	-	-	-	Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

a) aquatic toxicity

Component	CAS	Fish	Crustaceans	Algae
Potassium carbonate	584-08-7	LC50(96h)= 68 mg/L	CE50(48 h)= 200 mg/L	Not available
EDTA	60-00-4	LC50(96h)= 41 mg/L	CE50(48 h)= 113 mg/L	CE50(16 h)= 28 mg/L

b) terrestrial toxicity

Component	CAS	Macroorganisms	Microorganisms	Other organisms
Potassium carbonate	584-08-7	LC50(14 d)= 5595 mg/kg	Not available	Not available
EDTA	60-00-4	Not available	Not available	Not available

c) microbiological activity in residual water treatment plants

Component	CAS	Aquatic microorganisms toxicity
Potassium carbonate	584-08-7	Not available
EDTA	60-00-4	Not available

12.2 Persistence and degradability

Component	CAS	Period	Deterioration half-life	Deterioration period in waste water treatment plants
Potassium carbonate	584-08-7	Hydrolysis (Unavailable) Photolysis (Unavailable) Biodegradation (Unavailable)	Readily biodegradable	It does not cause biological consumption of oxygen.
EDTA	60-00-4	Hydrolysis (Unavailable) Photolysis (Unavailable) Biodegradation (Unavailable)	3% in 30 days	DB05<1%

12.3 Bioaccumulative potential

Component	CAS	Octanol-water partition coefficient (Kow)	Bio-concentration factor (BCF)	Memo
Potassium carbonate	584-08-7	Not available	Not available	Because of its high solubility in water, potassium carbonate does not accumulate in the fatty tissues of organisms. In the aquatic and terrestrial ecosystem is rapidly dissociated to potassium cation and different forms of inorganic carbon,

				which are very common ions in the medium. In animal and plant organisms, mass balance of carbonate and potassium is regulated by physiological mechanisms that ensure appropriate concentrations for natural processes inside cells
EDTA	60-00-4	-3.34	Not available	Not bioaccumulative.

12.4 Mobility in soil

Component	CAS	Result
Potassium carbonate	584-08-7	Potassium and carbonate are present in the environment in minerals, soils and sediments.
EDTA	60-00-4	Not available

12.5 Result of PBT and vPvB assesment

Not applicable.

12.6 Other adverse effects

Not available.

13. DISPOSAL INFORMATION

13.1 Waste treatment methods

Waste

Absorb residue with sand, soil or clay. The absorbent contaminated are either treated by an authorized agent.

Packing

Remove according to the law..

14. TRANSPORT INFORMATION

14.1 UN Number:

Not applicable.

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 MARPOL 73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION

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

Regulation (CE) 2003/2003 about fertilizers.

15.2 Chemical safety assessment

Chemical Safety Assessment carried out for potassium carbonate.

16. OTHER INFORMATION

H-statements

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

P-statements

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+352: IF ON SKIN: wash with plenty of soap and water.

P332+P337+P313: If skin irritation occurs, if eye irritation persists: Get medical advice attention.

P362: Take off contaminated clothing and wash before reuse.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

References and data sources

Safety Data Sheets of hazardous components.

Abbreviations and acronyms

NOAEL: Not observed adverse effect dose.

DL50: Lethal dose 50%.

CL50: Lethal concentration 50%.

DNEL: Derived no effect concentration.

PNEC: Predicted no effect concentration.

Proper training for workers

Compulsory training on prevention of occupational risks.

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