



According to EC Regulations No. 453/2010 (REACH), 1272/2008 (CLP) & 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name LONO K
Product code LEV2015-07
REACH registration No. Not applicable

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

Identified use(s) Use as a fertiliser concentrate for protected crops

Uses advised against Not suitable for use as a ready to use product

1.3. Details of the supplier of the safety data sheet

Supplier name: Leivity Crop Science Ltd
Supplier address: Leivity Crop Science Ltd
The Rural Business Centre
Myerscough College
Bilsborrow
United Kingdom
PR3 0RY

Supplier telephone: +44 (0) 1995 642351
Email: info@leivitycropscience.com

1.4. Emergency telephone number

Emergency phone No. +44 (0) 1995 642351 (GMT English spoken, Mon-Fri – 08:00 – 17:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Regulation (EC) No.1272/2008 (CLP) Not classified for supply

2.2. Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

CLP Hazard Pictograms: No applicable hazard pictogram

Signal Word(s): No signal word

Hazard Statements:

Precautionary Statements: The following precautionary statements have been applied voluntarily and have not been triggered by a hazard classification

P102 Keep out of reach of children
P264 Wash hands thoroughly after handling
P273 Avoid release to the environment
P337 + P313 If eye irritation persists: Get medical advice



2.3. Other hazards

This product has not been tested for PBT or vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC Classification No 1272/2008

No hazardous materials are present at a concentration threshold that triggers a classification under this regulation

SECTION 4: First aid measures

4.1. Description of first aid measures

4.1.1. First aid instructions.

If inhaled:	Move person into fresh air, rest and seek medical advice
If on skin (or hair):	Wash affected skin with soap and water. Wash clothes before reuse
If in eyes:	Wash affected eyes for at least 15 minutes under running water with eyelids held open. Remove contact lenses if possible. Seek medical advice
If swallowed:	Never give anything by mouth to an unconscious person. Rinse mouth and throat. Do not induce vomiting unless advised by a medical professional. Drink 1-2 glasses of water. Consult a physician
Other first aid advice:	If vomiting occurs spontaneously, keep airways clear. Give more water when vomiting stops

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

If inhaled:	Inhalation of mist or vapours may cause irritation to mucous membranes and upper respiratory tract. Symptoms may include irritation, coughing and tightness of breath
If on skin (or hair):	Product not known to be irritating. Irritation may occur to skin when already sore or dry according to contact time
If in eyes:	Product not known to be irritating to eyes. Irritation of the eye tissues may occur together with slight redness and tearing
If swallowed:	Ingestion of a significant quantity (>100ml) is expected to cause immediate vomiting. Ingestion can cause headaches, nausea, vomiting and diarrhoea. Palpitations, muscle weakness and cyanosis may be symptoms of hyperkalemia and/or methemoglobinemia

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

Medical treatment:	Treatment should be supportive, treatments for the effects of hyperkalemia and methemoglobinemia may be indicated
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SECTION 5: Firefighting measures



5.1. Extinguishing media

Suitable extinguishing media: All extinguishing agents permitted

Unsuitable extinguishing media: None known

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Oxides of nitrogen and chlorine may occur

Other special hazards during fire: Organic components may burn once dried

5.3. Advice for firefighters

Protective actions during firefighting: Wear self-containing breathing apparatus

Special protective equipment for firefighters: No special instructions

Other advice: Keep product containers cool with water spray

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Non-emergency personnel PPE See section 8.2

Emergency responders PPE See section 8.2

Controlling risks from accidental release: Remove any contaminated soil

Emergency procedures: Evacuate personnel to safe areas.

6.2. Environmental precautions

Keep accidental releases away from: Drains, water courses, soil and open ground. Discharge to ground, water courses or drains can cause eutrophication

6.3. Methods and material for containment and cleaning up

Containing a spill: Mop up and contain with absorbent materials

Cleaning up a spill Mop spills, recycle where possible

Other information on spill handling: Dilute with water, capture with absorbent material. Recycle where possible

6.4. Reference to other sections

References to other sections: See section 8.2 for personal protective equipment. See section 13.1 for disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe handling recommendations: Wash hands and exposed skin before meals and after use. Wear gloves when handling the product over long periods of time



Handling incompatibles:	Do not use with bases or strong oxidising agents
Reducing environmental risk:	Do not discharge into drains or water courses
Occupational hygiene advice	Wash hands after using this product and before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas

7.2. Conditions for safe storage, including any incompatibilities

Safe storage: managing risks during storage:

Explosive atmospheres formed during storage:	Not applicable
Corrosive conditions during storage:	Not applicable
Flammability hazards during storage:	Not applicable
Incompatible substances or mixtures:	Product will precipitate when mixed with alkaline solutions
Evaporative conditions:	Not applicable
Potential ignition sources, including electrical equipment:	Not applicable

Safe storage: controlling effects of ambient conditions:

Weather conditions:	Do not store outside uncontained
Ambient pressure:	Not applicable
Temperature:	Do not allow product to freeze or exceed 30°C
Sunlight:	Keep out of direct sunlight
Humidity:	Not applicable
Vibration:	Not applicable

Safe storage: maintaining the integrity of the product:

Stabilisers:	Stabilisers are not used in this product
Antioxidants:	Antioxidants are not used in this product

Safe storage: other advice:

Ventilation requirements for storage:	No specific ventilation requirements
Specific designs for storage rooms or vessels:	No specific design criteria on storage areas apart from normal regulatory requirements for substances of this type
Quantity limits under storage conditions:	Not applicable
Suitable packaging for the substance:	Keep in original container

7.3. Specific end use(s)

Uses:	Use as a fertiliser concentrate for protected products
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure limits:	Not applicable
8.1.2 Biological Limit Values:	Not applicable
8.1.3 Current recommended monitoring procedures:	Not applicable
8.1.4 Air contaminants formed when using the product as intended:	Not applicable
8.1.5. PNECs and DNELs	Not applicable

8.2. Exposure controls

8.2.1. Appropriate engineering controls: Handle in accordance with good industrial hygiene

8.2.2. Personal Protection Equipment

Eye protection: When handling the product over an extended period of time risk assessments may suggest the use safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)

Face protection: Not required

Hand protection: When handling the product over an extended period of time use nitrile, latex or rubber gloves, which satisfy the specifications of EU Directive 89/686/EEC and the standard EN 420 derived from it

Other skin protection Do not wear open footwear

Respiratory protection Not required

Thermal hazards Not required

8.2.3. Environmental exposure controls Do not release substance to drains or surface water

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Clear amber liquid
Physical state:	Liquid
Colour:	Amber
Odour:	Slightly sweet
Odour threshold:	Data not available
pH:	pH 3.0 – 4.0
Melting point:	Data not available
Freezing point:	<0°C



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Initial boiling point:	Aqueous component will boil at 100°C
Boiling range:	Data not available
Flash point:	Data not available
Flash point method:	Data not available
Evaporation rate:	Data not available
Flammability (if solid or gas):	Data not available
Upper and lower flammability or explosive limits:	Data not available
Vapour pressure:	Data not available
Vapour density:	Data not available
Relative density:	1.15 – 1.25 g/cm ³ at 20°C
Solubility(ies)	Completely soluble in water
Partition coefficient: n-octanol/water	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	<100 cPs at 20°C
Explosive properties	Data not available
Oxidising properties	Data not available
9.2. Other information	Data not available

SECTION 10: Stability and reactivity

10.1. Reactivity	Can react with bases and strong oxidising agents
10.2. Chemical stability	Product is stable under anticipated storage and handling conditions
10.3. Possibility of hazardous reactions	Substance not known to react and/or polymerise
10.4. Conditions to avoid	Excessive heat (to water boiling point), mixing with alkalis
10.5. Incompatible materials	Oxidising and alkaline materials
10.6. Hazardous decomposition products	No known hazardous decomposition products known

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Oral LD50; >2,000 mg/kg body weight (extrapolated from constituent components)
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Skin corrosion/irritation	Not classified as irritating to skin
Serious eye damage/irritation	Not classified as irritating to the eyes
Respiratory or skin sensitisation	Data not available
Germ cell mutagenicity	Data not available
Carcinogenicity	Data not available
Reproductive toxicity	Data not available
STOT-repeated exposure;	Data not available
11.2. Other information	No other information

SECTION 12: Ecological information

12.1. Toxicity

No specific test data is available for this product. Data below has been extrapolated from constituent components

Species	Test	Value
Water flea (<i>Daphnia magna</i>)	EC50 48H	>3 g/L

12.2. Persistence and degradability Data not available

12.3. Bioaccumulative potential Data not available

12.4. Mobility in soil Data not available

12.5. Results of PBT and vPvB assessment Data not available

12.6. Other adverse effects

Environmental fate Data not available

Photochemical ozone creation potential Data not available

Ozone depletion potential Data not available

Endocrine disrupting potential Data not available

Global warming potential Data not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

This material, if discarded as produced, is not classified as a hazardous waste. Waste treatment containers to be used for product include IBCs or drums. Recycle material where possible. If heavily soiled or disposal judged as necessary dispose in accordance with the Directive on waste 2008/98/EC



No specific waste treatment containers to be used for contaminated packaging, packaging should be recycled where possible. Waste treatment method for contaminated packaging should include a triple rinse with water. Dilute washings should be recycled where possible

SECTION 14: Transport information

14.1. UN number Not applicable

14.2. UN proper shipping name

ADR/RID Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

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

Ozone depleting substance (EC No 2037/2000): Not applicable

Persistent organic pollutants (EC No 850/2004) Not applicable

Export and import of dangerous chemicals (EC No 689/2008) Not applicable

COMAH/ Seveso II categories or named substance Not applicable

REACH Authorisations and/or Restrictions Not applicable

Any other relevant Safety, health and environmental regulations: Not applicable

15.2. Chemical safety assessment A chemical safety assessment has not been carried out for this product

SECTION 16: Other information

a) Changes made to SDS:

Safety datasheet has been completely rewritten

b) Key (or legend)

PPE Personal Protective Equipment

LD50 Lethal Dosage affecting 50% of sample population

EC50 Effective Concentration affecting 50% of sample population

c) Literature references



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Updated: 03.11.2017

European Chemicals Agency:

<http://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>

NLM – Toxicology Data Network:

<https://www.nlm.nih.gov/>

Last accessed (03/11/2017)

Some physical properties reported from direct laboratory testing performed at Grotech Production Ltd

Some data has been derived from constituent safety datasheets

d) Details of relevant hazard information

P102	Keep out of reach of children
P264	Wash hands thoroughly after handling
P273	Avoid release to the environment
P337 + P313	If eye irritation persists: Get medical advice/attention

e) Appropriate training for workers

Training for spillage handling and chemical handling is recommended

f) Classification method:

CLP classification