



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 Indra Plus
Product code LEV2018-11
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 foliar fertiliser concentrate for dilution
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@levitycropscience.com

1.4. Emergency telephone number

Emergency phone No. +44 (0) 111 (24-hour line, English main language, interpreters available)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Regulation (EC) No.1272/2008 (CLP) Skin Corrosion (Category 1)
Serious Eye Damage (Category 1)
Chronic Aquatic Toxicity (Category 3)
Safety datasheet available on request

2.2. Label elements

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



CLP Hazard Pictograms:

Signal Word: Danger

Hazard Statements:

H314 Causes severe skin burns and eye damage



EU Safety Data Sheet

Version 1.0
Updated: 05.06.2019

H412 Harmful to aquatic life with long lasting effects

Precautionary Statements:

P260 Do not breathe mist/ spray
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
P310 Immediately call a POISON CENTRE or doctor/ physician

2.3. Other hazards This product has not been tested for PBT or vPvB

EUH210 Safety datasheet available on request

SECTION 3: Composition/information on ingredients

3.2. Mixtures

EC Classification No 1272/2008

Hazardous ingredient(s)	%w/w	CAS no	EC no	REACH Registration no	Hazard statements
Orthophosphoric acid	>25 – 50%	7664-38-2	231-633-2	01-2119485924-24	H314
Manganese nitrate hydrate	>1% - <10%	10377-66-9	233-828-8	01-2120058018-59	H272, H302, H314, H373, H412, EUH071
Zinc chloride anhydrous	<1%	7646-85-7	231-592-0	01-2119472431-44	H302, H314, H335, H400, H410

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 in a position comfortable for breathing and seek medical attention if breathing becomes difficult

If on skin (or hair): Wash affected skin thoroughly with soap and water, remove and 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 immediate medical attention

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth and throat. Do not induce vomiting. Drink 1-2 glasses of water. Seek immediate medical attention

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 severe irritation and a burning sensation to mucous membranes and upper respiratory tract. Symptoms may include irritation, coughing and tightness of breath, a sore throat may result from exposure
If on skin (or hair):	Exposure can result in redness, itching and soreness. Where not washed promptly serious skin burns may occur, especially to already damaged or abraded skin
If in eyes:	Exposure to eyes will result in immediate pain, redness and profuse watering. Permanent corrosive damage to the eyes can occur if not washed promptly
If swallowed:	Ingestion may cause abdominal pain, shock, difficulties swallowing, vomiting and bloody diarrhoea within hours of ingestion. Chemical burns to the mouth, throat and gastrointestinal tract may occur. There may be symptoms of metal toxicity

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

Medical treatment:	Burn treatment should be symptomatic and supportive. Medical regimes should be dictated by a medical professional
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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 phosphorous, nitrogen and chlorine may occur
Other special hazards during fire:	None known

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. The product may be corrosive to certain metals including aluminium and



mild steel, ensure that contaminated equipment and surfaces are promptly cleaned

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 with copious amounts of water

Other information on spill handling: Material is water miscible, rain will cause the material to wash away and spread beyond the area of spillage

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 strong bases

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 and possibly react violently when mixed with strong alkalis

Evaporative conditions: Not applicable

Potential ignition sources, including electrical equipment: Not applicable

Safe storage: controlling effects of ambient conditions:



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Weather conditions: Do not store outside uncontained

Ambient pressure: Not applicable

Temperature: Do not allow product to freeze

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 foliar fertiliser concentrate for dilution

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure limits:

Substance	CAS No	LTEL TWA 8hr mg/m ³	STEL TWA 8hr mg/m ³	Notes
Orthophosphoric acid	7664-38-2	1	2	EH40

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:	Use tight-fitting safety goggles tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
Face protection:	A face shield may be required where there is a risk of the product splashing
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 384 derived from it. Ensure there is not a gap in protection between the glove cuffs and coverall sleeves
Other skin protection	A protective coverall suit satisfying the standard of EN 13034:2005 may be required for situations where mists and aerosols are generated (i.e. changing winds). Do not wear open footwear
Respiratory protection	Not required for normal use
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:	Pale blue liquid
Physical state:	Liquid
Colour:	Clear, pale blue
Odour:	Minimal
Odour threshold:	Data not available
pH:	<1.0
Melting point:	Data not available
Freezing point:	Data not available
Initial boiling point:	100°C for aqueous component
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:	1.30 – 1.32 g ml ⁻¹ at 20°C
Solubility(ies)	Completely miscible in water
Partition coefficient: n-octanol/water	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	<100 cPs, Newtonian liquid
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
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	Mixing with alkalis
10.5. Incompatible materials	Alkaline materials
10.6. Hazardous decomposition products	No known hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Acute toxicity point estimate based on classification Oral LD50; >2,000 mg/kg body weight Ingestion expected to cause corrosive damage
Skin corrosion/irritation	Classified as corrosive to skin
Serious eye damage/irritation	Classified as corrosive 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 test data is available for this product. Data reported for relevant constituent components.

Zinc chloride; CAS 7646-85-7

Species	Test	Value
Fathead minnow (<i>Pimephales promelas</i>)	LC50 96H	0.33 mg/L
Rainbow trout (<i>Oncorhynchus mykiss</i>)	LC50 96H	0.17 mg/L
Water flea (<i>Daphnia magna</i>)	EC50 48H	0.10 mg/L
Algae (<i>Pseudokirchnerella subcapitata</i>)	NOEC 24d	19 µg/L

12.2. Persistence and degradability

No test data available; inorganic component is expected to persist and is non-biodegradable

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 classified as a hazardous waste. Waste treatment containers to be used for product include IBCs or HDPE 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. Note that washings will be acidic, dilute washings should be recycled where possible

SECTION 14: Transport information

14.1. UN number

UN3264

14.2. UN proper shipping name

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., CONTAINS (PHOSPHORIC ACID)



14.3. Transport hazard class(es)	8
14.4. Packing group	III
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:

New safety datasheet

b) Key (or legend)

PPE	Personal Protective Equipment
LD50	Lethal Dosage affecting 50% of sample population
LC50	Lethal Concentration affecting 50% of sample population
EC50	Effective Concentration affecting 50% of sample population
TWA	Time Weighted Average
LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit

c) Literature references

European Chemicals Agency:

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

NLM – Toxicology Data Network:

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

EH40 Workplace Exposure Limits

<http://www.hse.gov.uk/pUbns/priced/eh40.pdf>

Last accessed (05/06/2019)

Some data has been derived from constituent safety datasheets



d) Details of relevant hazard information

H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H335	May cause respiratory irritation
H373	May cause damage to organs (brain) through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
P260	Do not breathe mist/ spray
P264	Wash hands thoroughly after handling
P273	Avoid release to the environment
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection
P270	Do not eat, drink or smoke when using this product
P301 + P312	IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower
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
P310	Immediately call a POISON CENTRE or doctor/physician
P321	Specific treatment (see on this label)
P330	Rinse mouth
P363	Wash contaminated clothing before reuse
P391	Collect spillage
P405	Store locked up
P501	Dispose of contents in accordance with local regulations, dispose of container to appropriate domestic recycling stream
EUH071	Corrosive to the respiratory tract
EUH210	Safety datasheet available on request

e) Appropriate training for workers

Training for spillage handling and chemical handling is recommended

f) Classification method:

CLP classification, non-additive method for skin corrosion classification, summation method applied for ecotoxicity classification