



According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

SAFETY DATA SHEET

Fusion Liquid Fe

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

1.1. Product identifier

Trade name: Fusion Liquid Fe

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

Relevant identified uses of the substance or mixture: Fertiliser
Restricted to professional users.

Uses advised against : None known.

1.3. Details of the supplier of the safety data sheet

Company and address: **Indigrow Ltd**
The Old Bakery, Hyde End Lane

RG7 4RH Brimpton

United Kingdom

+44 (0) 118 971 0995

+44 (0) 118 971 0990

www.indigrow.com

E-mail: growth@indigrow.com

Revision: 08/01/2025

SDS Version: 1.0

1.4. Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)

General public:

England - Dial 111 to reach NHS 111 (24 hour service)

Scotland - Dial 112 to reach NHS 24 (24 hour service)

Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour service)

See section 4 "First aid measures".

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315, Causes skin irritation.

Eye Irrit. 2; H319, Causes serious eye irritation.

2.2. Label elements

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

Causes skin irritation. (H315)
Causes serious eye irritation. (H319)

Precautionary statement(s):

General:

-

Prevention:

Wash hands thoroughly after handling. (P264)
Wear eye protection/protective gloves/protective clothing. (P280)

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
If eye irritation persists: Get medical advice/attention. (P337+P313)

Storage:

-

Disposal:

-

Hazardous substances:

None known.

Additional labelling:

EUH208, Contains 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one, 2-methylisothiazol-3(2H)-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.

2.3. Other hazards

Additional warnings:

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
iron (II) sulfate (1:1) heptahydrate	CAS No.: 7720-78-7 EC No.: 231-753-5 UK-REACH: Index No.: 026-003-01-4	15-25%	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	
bronopol (INN);2-bromo-2-nitropropane-1,3-diol	CAS No.: 52-51-7 EC No.: 200-143-0 UK-REACH: Index No.: 603-085-00-8	<0.05%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10)	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS No.: 55965-84-9 EC No.: 611-341-5 UK-REACH: Index No.: 613-167-00-5	<0.0015%	EUH071 Acute Tox. 3, H301 Acute Tox. 2, H310 Skin Corr. 1C, H314 (SCL: 0.60 %) Skin Irrit. 2, H315 (SCL: 0.06 %) Skin Sens. 1A, H317 (SCL: 0.0015 %) Eye Dam. 1, H318 (SCL: 0.60 %) Eye Irrit. 2, H319 (SCL: 0.06 %) Acute Tox. 2, H330 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information:

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.
Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.



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<i>Inhalation:</i>	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
<i>Skin contact:</i>	IF ON SKIN: Wash with plenty of water and soap. Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.
<i>Eye contact:</i>	If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
<i>Ingestion:</i>	If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.
<i>Burns:</i>	Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Not applicable.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-



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extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material:

Keep only in original packaging.

Storage conditions:

Dry, cool and well ventilated

Incompatible materials:

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

bronopol (INN);2-bromo-2-nitropropane-1,3-diol

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Dermal	4 µg/cm ²
Long term – Local effects - Workers	Dermal	8 µg/cm ²
Long term – Systemic effects - General population	Dermal	700 µg/kg bw/day
Long term – Systemic effects - Workers	Dermal	2 mg/kg bw/day
Short term – Local effects - General population	Dermal	4 µg/cm ²
Short term – Local effects - Workers	Dermal	8 µg/cm ²
Short term – Systemic effects - General population	Dermal	2.1 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	6 mg/kg bw/day
Long term – Local effects - General population	Inhalation	600 µg/m ³
Long term – Local effects - Workers	Inhalation	2.5 mg/m ³
Long term – Systemic effects - General population	Inhalation	600 µg/m ³
Long term – Systemic effects - Workers	Inhalation	3.5 mg/m ³
Short term – Local effects - General population	Inhalation	600 µg/m ³
Short term – Local effects - Workers	Inhalation	2.5 mg/m ³
Short term – Systemic effects - General population	Inhalation	1.8 mg/m ³
Short term – Systemic effects - Workers	Inhalation	10.5 mg/m ³
Long term – Systemic effects - General population	Oral	180 µg/kg bw/day
Short term – Systemic effects - General population	Oral	500 µg/kg bw/day

iron (II) sulfate (1:1) heptahydrate

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	1.4 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	2.8 mg/kg bw/day
Long term – Systemic effects - General population	Oral	280 µg/kg bw/day
Short term – Systemic effects - General population	Oral	20 mg/kg bw/day

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	20 µg/m ³
Long term – Local effects - Workers	Inhalation	20 µg/m ³
Short term – Local effects - General population	Inhalation	40 µg/m ³
Short term – Local effects - Workers	Inhalation	40 µg/m ³
Long term – Systemic effects - General population	Oral	90 µg/kg bw/day
Short term – Systemic effects - General population	Oral	110 µg/kg bw/day

PNEC



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bronopol (INN);2-bromo-2-nitropropane-1,3-diol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		10 µg/L
Freshwater sediment		41 µg/kg
Intermittent release (freshwater)		2.5 µg/L
Marine water		800 ng/L
Marine water sediment		3.28 µg/kg
Sewage treatment plant		430 µg/L
Soil		500 µg/kg

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3.39 µg/L
Freshwater sediment		27 µg/kg
Intermittent release (freshwater)		3.39 µg/L
Intermittent release (marine water)		3.39 µg/L
Marine water		3.39 µg/L
Marine water sediment		27 µg/kg
Sewage treatment plant		230 µg/L
Soil		10 µg/kg

8.2. Exposure controls

Apply general control to prevent unnecessary exposure

General recommendations:

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios:

There are no exposure scenarios implemented for this product.

Exposure limits:

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures:

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures:

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure:

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally:

Use only UKCA marked protective equipment.

Respiratory Equipment:

Type	Class	Colour	Standards	
Respiratory				

Type	Class	Colour	Standards	
protection is not needed in the event of adequate ventilation.				

Skin protection:

Recommended	Type/Category	Standards	
Wear appropriate protection clothing, e.g. coveralls in polypropylene or working clothes in cotton or polyester.	-	-	

Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	2,0	> 480	EN374-2, EN374-3, EN388, EN407	

Eye protection:

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:

Liquid

Colour:

Brown

Odour / Odour threshold:

Characteristic

pH:

3.0 - 5.0

Density (g/cm³):

1.19 - 1.23

Kinematic viscosity:

No relevant or available data due to the nature of the product.

Particle characteristics:

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C):

No relevant or available data due to the nature of the product.

Softening point/range (°C):

Does not apply to liquids.



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<i>Boiling point (°C):</i>	No relevant or available data due to the nature of the product.
<i>Vapour pressure:</i>	No relevant or available data due to the nature of the product.
<i>Relative vapour density:</i>	No relevant or available data due to the nature of the product.
<i>Decomposition temperature (°C):</i>	No relevant or available data due to the nature of the product.

Data on fire and explosion hazards

<i>Flash point (°C):</i>	No relevant or available data due to the nature of the product.
<i>Flammability (°C):</i>	No relevant or available data due to the nature of the product.
<i>Auto-ignition temperature (°C):</i>	No relevant or available data due to the nature of the product.
<i>Lower and upper explosion limit (% v/v):</i>	No relevant or available data due to the nature of the product.

Solubility

<i>Solubility in water:</i>	Miscible
<i>n-octanol/water coefficient (LogKow):</i>	No relevant or available data due to the nature of the product.
<i>Solubility in fat (g/L):</i>	No relevant or available data due to the nature of the product.

9.2. Other information

<i>Oxidizing properties:</i>	No relevant or available data due to the nature of the product.
<i>Other physical and chemical parameters:</i>	No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.



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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

This product contains substances that may trigger an allergic reaction in already sensitized persons.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.



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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

No data available.

12.2. Persistence and degradability

Based on available data, the classification criteria are not met.

12.3. Bioaccumulative potential

Based on available data, the classification criteria are not met.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 4 - Irritant (skin irritation and eye damage)

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

Not applicable.

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informat ion:
ADR	-	-	-	-	-	-



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	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informat ion:
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: REGULATORY INFORMATION

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

Restrictions for application:

Restricted to professional users.

Demands for specific education:

No specific requirements.

*Control of Major Accident Hazards (COMAH) -
Categories / dangerous substances:*

Not applicable.

Additional information:

Not applicable.

Sources:

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.
Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.
Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

H373, Corrosive to the respiratory tract.



According to REACH Regulation (EC) No 1907/2006, as retained and amended by SI 2019/758 and SI 2020/1577

H290, May be corrosive to metals.
H301, Toxic if swallowed.
H302, Harmful if swallowed.
H310, Fatal in contact with skin.
H312, Harmful in contact with skin.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H330, Fatal if inhaled.
H335, May cause respiratory irritation.
H400, Very toxic to aquatic life.
H410, Very toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit



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SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

Paul Smith

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en