

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 13.09.2023

Version number 1

Revision: 13.09.2023

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

- **1.1 Product identifier**
- **Trade name:** Star*FISH® Human Chromosome-Specific Centromeric Probes
- **Registration number** Mixture
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC21 Laboratory chemicals
- **Application of the substance / the mixture** Laboratory chemicals
- **Uses advised against**
Not for in-vivo use in humans.
This product is for laboratory use only.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Cambio Ltd
1 Irwin Centre
Scotland Road
Dry Drayton
Cambridge
CB23 8AR
UNITED KINGDOM
Tel: +44 (0)1954 210200
Email: support@cambio.co.uk
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**
Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

Repr. 1B H360D May damage the unborn child.

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- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
 - **Hazard pictograms** GHS08
 - **Signal word** Danger
 - **Hazard-determining components of labelling:**
Formamide
 - **Hazard statements**
H360D May damage the unborn child.
 - **Precautionary statements**
 - P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 - P308+P313 IF exposed or concerned: Get medical advice/attention.
 - P405 Store locked up.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
 - **2.3 Other hazards**
 - **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.

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· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 75-12-7 EINECS: 200-842-0	Formamide	 Repr. 1B, H360D	50–100%
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· **SVHC**

75-12-7	Formamide
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· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **General information:** No special measures required.· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Wash mouth out with water

If symptoms persist consult doctor.

· **Information for doctor:** Treat symptomatically and supportively.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

· 5.3 Advice for firefighters

· **Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

· **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow to enter sewers/ surface or ground water.

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- **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.
Dispose contaminated material as waste according to section 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 6.1 D
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see section 7.

· Ingredients with limit values that require monitoring at the workplace:

75-12-7 Formamide

WEL	Short-term value: 56 mg/m ³ , 30 ppm
	Long-term value: 37 mg/m ³ , 20 ppm

· DNELs

75-12-7 Formamide

Dermal	DNEL Long-term systemic effects	952 µg/kg bw/day (worker)
Inhalative	DNEL Long-term systemic effects	6.6 mg/m ³ (worker)

· PNECs

75-12-7 Formamide

PNEC Freshwater	500 µg/L
PNEC Freshwater - Intermittent releases	5 mg/L
PNEC Marine water	500 µg/L
PNEC Sewage Treatment Plant	100 mg/L
PNEC Sediment (freshwater)	1.26 mg/kg
PNEC Soil	151 µg/kg

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.

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Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

· **Respiratory protection:** Not required.

· **Protection of hands:**



Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

· **Body protection:**



Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:

Liquid

Colour:

According to product specification

Biotin: Colourless

FITC: Pale Yellow

Cy3: Pink

· Odour:

Mild

· Odour threshold:

Not determined.

· pH-value at 20 °C:

8

· Change in condition

Melting point/freezing point:

Undetermined.

Initial boiling point and boiling range: 100 °C

· Flash point:

Not applicable.

· Flammability (solid, gas):

Not applicable.

· Auto-ignition temperature:

>400 °C

· Decomposition temperature:

Not determined.

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· Ignition temperature:	Product is not self-igniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C:	23 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
 - Strong acids.
 - Strong bases.
 - Strong oxidising agents.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

75-12-7 Formamide

Oral	LD50	5,570 mg/kg (rat)
Dermal	LD50	>3,000 mg/kg (rat)
Inhalative	LC50/4 h	>21 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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**
 - May damage the unborn child.

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- **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.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

75-12-7 Formamide

EC50 (96 h)	>100 mg/l (Bacteria)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact waste processors for recycling information.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· Uncleaned packaging:

· Recommendation:

Disposal must be made according to official regulations.

Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR/RID/ADN, IMDG, IATA

Void

· 14.2 UN proper shipping name

· ADR/RID/ADN, IMDG, IATA

Void

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· 14.3 Transport hazard class(es)	
· ADR/RID/ADN, ADN, IMDG, IATA	
· Class	Void
· 14.4 Packing group	
· ADR/RID/ADN, IMDG, IATA	Void
· 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 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations:**
- **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to UK REACH**

75-12-7	Formamide
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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H360D May damage the unborn child.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Repr. 1B: Reproductive toxicity – Category 1B

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