Safety Data Sheet

According to Regulation (EC) No 1907/2006

Version	1.0 / EN
Revision date	-
Valid after	2024-05-15

1. Identification of the Substance/Mixture and of the Company

1.1 Product Identifier

Trade name:	*abberior* FLUX 640, Protein Labeling Kit (article number: FX640-0050-1KIT)
REACH No:	A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses and uses advised against

Fluorescent dye for physical/chemical research purposes, spectroscopy, and optical microscopy in biological and biomedical applications.

This product is sold for research and development purposes only and *must not* be used for any human or animal therapeutic, clinical diagnostic or other medical purpose. It is not intended for food, drug, household, agricultural, or cosmetic use.

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer / Distributor

Abberior GmbH

Street / PO Box

Hans-Adolf-Krebs-Weg 6

Country Code / Postal Code / City

DE – 37077 Göttingen, Germany

Contact for Technical Inquiries

info@abberior.com

Phone / Fax

+49 551 9995 4011 / +49 551 9995 4098

1.4 Emergency Telephone Numbers

Emergency Phone #:	**0800 181 7059** (CHEMTREC Germany) **+49 (0)696 43508409** (CHEMTREC worldwide)

2. Hazards Identification

2.1 Classification of the Substance or Mixture

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (EU-GHS/CLP)

Flam. Liq. 3, H226 Acute Tox.,

Inhalation 4, H332 Acute Tox.,

Dermal 4, H312

Eye Irrit. 2, H319

Repr. 1B, H360D

According to EC-directives 67/548/EEC or 1999/45/EC

Xn, R20/21

Xi, R36

R61

2.2 Labelling Elements according Regulation (EC) No 1272/2008

Pictogram:

Signal Word: Danger

Hazard Statements (H-phrases)

H226	Flammable liquid and vapour.
H312 + H332	Harmful in contact with skin or if inhaled
H319	Causes serious eye irritation.
H360D	May damage the unborn child.

Precautionary Statements (P-phrases)

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
P280	Wear protective gloves/ protective clothing.

Response:

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.

P304 + P341	IF INHALED: If breathing is difficult, remove 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.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.

Storage:

P402	Store in a dry place.
P404	Store in a closed container.
P411 + P235	Store at temperatures not exceeding 8°C.

Additional Labelling

Substance not fully tested.

3. Composition/Information on Ingredients

3.1 Substances

Hazard component of the Kit:	DMF
Synonyms:	N,N-Dimethylformamide
Formula:	C3H7NO
Molecular Weight:	73.09 g/mol
CAS-No.:	68-12-2
EC number:	200-679-5
Index-No.:	616-001-00-X
Registration number:	01-2119475605-32-XXXX
Classification:	Flam. Liq. 3, H226- Acute Tox. 4, H312/H332- Eye Irrit. 2, H319- Repr. 1B, H360D Xn, R20/21- Xi, R36- R61
Concentration: 4.	100%

4. First Aid Measures

4.1 Description of First Aid Measures

General information: Consult a doctor. Show this safety data sheet to the attending physician.

Following Inhalation

Fresh air. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

Following Skin Contact

Take off all contaminated clothing. Rinse skin with water/shower.

Following Eye Contact

Remove contact lenses. Immediately rinse with plenty of water, also under the eyelid. Proceed for at least 15 minutes. Consult an ophthalmologist.

Following Ingestion

Immediately wash your mouth with plenty of water. Consult a doctor.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

If unconscious call an emergency. Consult a poison control center (see Section 1.4) before administering an antidote.

5. Fire-Fighting Measures

5.1 Extinguishing Media

suitable: Water spray, alcohol resistant foam, dry chemical or carbon dioxide

unsuitable: full water jet

5.2 Special Hazards Arising from the Substance or Mixture

Combustible

Development of hazardous combustion gases or vapors possible in the event of fire.

5.3 Advice for Fire-Fighters

Wear self-contained breathing apparatus. Coll endangered containers with water spray from a safe distance. Defeat evolving vapors with water. Keep quench water away from drains, surface, and ground water and soil. Wear protective suit to avoid skin contact; stay in safe distance.

5.4 Further Information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Wear respiratory protection. Avoid dust formation. Do not breathe vapors/mist/gas/dust. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedure, consult an expert.

6.2 Environmental Precautions

Do not let product enter drains.

6.3 Methods and Material for Containment and Cleaning up

Collect escaped material mechanically. Soak up dissolved product with inert absorbent material. Collect material in dedicated, properly labeled containers. Dispose in accordance with federal, state and local regulations. Do not dispose dissolved material into drains.

6.4 Reference to Other Sections

Personal protective equipment: see section 8

Disposal: see section 13

7. Handling and Storage

7.1 Precautions for Safe Handling

Information about safe handling

Avoid contact with eyes and skin. Avoid dust and aerosol formation.

Information about fire and explosion protection

Provide appropriate exhaust ventilation if dust is formed.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling product.

For precautions see section 2.2.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Storage conditions

Store the product away from moisture

The product must not be stored together with pharmaceuticals, foods and feedstuff.

Storage Stability

Store at temperatures not exceeding 8°C.

7.3 Specific End Use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure Controls / Personal Protection

8.1 Control Parameters

Ingredients with workplace control parameters.

8.2 Exposure Controls

Personal protective equipment

Respiratory Protection

Not required except in case of aerosol formation.

Skin Protection

The suitable protective gloves must meet the specification of the EC Directive 2016/425 and the standard derived from it according to EN 374.

Gloves must be inspected for damage before use. Use an appropriate removal method to avoid skin contact. Disposal of the contaminated gloves after use within the framework of legal regulations. Washing and drying the hands after work.

Eye

Wear safety goggles. Use only equipment that has been tested and approved to government standard. Need product only with standard NIOSH (US) or EN 166 (EU).

Environmental Exposure Controls

Prevent further leakage or spillage, if safe to do so. Do not empty into drains.

9. Physical and Chemical Properties

9.1 Basic Physical and Chemical Properties

Appearance:	liquid
Molecular Weight:	73,1 g/ml
Melting point:	61 °C
Boiling point:	- 153 °C
Flash point:	58 °C- closed cup
Ignition temperature:	440 °C
Lower explosion limit:	2.2 % (v/v)
Upper explosion limit:	16 % (v/v)
Water solubility:	completely miscible

9.2 Other Properties

No other properties available.

10. Stability and Reactivity

10.1 Reactivity

No reactivity with significant heat production known.

10.2 Chemical Stability

The product is chemically stable under ambient conditions (room temperature).

10.3 Possibility of Hazardous Reactions

No hazardous reactions known when used properly.

10.4 Conditions to Avoid

No information available.

10.5 Incompatible Materials

strong oxidizer.

10.6 Hazardous Decomposition Products

In case of fire: see section 5

11. Toxicological Information

11.1 Information on Toxicological Effects

Acute Toxicity

Oral LD50	2800 mg/kg (rat) (TOXNET)
Dermal LD50	1500 mg/kg (rabbit) (TOXNET)
Inhalativ LC50/4 h	90-15 mg/l (rat)

Skin Corrosion/Irritation

Skin- human- Mild skin irritation- 24 h

Serious Eye Damage/Irritation

Eyes- rabbit- Moderate eye irritation- 24 h

Respiratory or Skin Sensitisation

No data available

Germ cell mutagenicity

mouse, lymphocyte, mutation in mammalian somatic cells.

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification. IARC: 3- Group 3: Not classifiable as to its carcinogenicity to humans (N,N-Dimethylformamide).

Reproductive Toxicity

May cause congenital malformation in the fetus.

Specific Target Organ Toxicity – single exposure

No data available

Specific Target Organ Toxicity – repeated exposure

No data available.

Aspiration Hazard

No data available

12. Ecological Information

12.1 Toxicity

Toxicity to fish	LC50- Oncorhynchus mykiss (rainbow trout)- 9.000- 13.000 mg/l- 96 h
	LC50- Lepomis macrochirus (Bluegill)- 6.700- 7.500 mg/l- 96 h
	LC50- Pimephales promelas (fathead minnow)- 10.400- 10.800 mg/l- 96 h
	LC50- Oncorhynchus mykiss (rainbow trout)- 9.800 mg/l- 96 h
	LC50- Lepomis macrochirus (Bluegill)- 6.300 mg/l- 96 h
	LC50- Pimephales promelas (fathead minnow)- 10.600 mg/l- 96 h
Toxicity to daphnia and other	EC50- Daphnia magna (Water flea)- 9.600- 13.100 mg/l- 48 h
aquatic invertebrates	EC50- Daphnia magna (Water flea)- 15.700 mg/l- 48 h
Toxicity to algae	LC50- Desmodesmus subspicatus (green algae)- > 500 mg/l- 96 h

12.2 Persistence and Degradability

Biodegradability Result: > 90 %- Readily biodegradable

12.3 Bioaccumulative Potential

No data available

12.4 Mobility in Soil

No data available

12.6 Other Adverse Effects

Not tested. No adverse are known when handled and disposed properly. Do not allow product to reach sewage system.

13. Disposal Considerations

13.1 Waste Treatment Methods

Dispose of residues and non-recyclable solutions in accordance with the Waste Directive 2008/98/EC, as well as national and regional regulations. The product should be dissolved in or mixed with a flammable solvent and burned in a chemical incinerator.

Keep only in original containers. Do not mix with other waste. Uncleaned containers or contaminated materials should be treated appropriately for the product.

14. Transport Information

14.1 UN Number/UN Proper Shipping Name

ADR/RID:	UN 2265 N,N-Dimethylformamid
IMDG:	UN 2265 N,N-Dimethylformamide
IATA:	UN 2265 N,N-Dimethylformamide

14.2 Transport Hazard Class(es)

ADR/RID:	3
IMDG:	3
IATA:	3

14.3 Packaging Group

ADR/RID:	III
IMDG:	III
IATA:	III

14.4 Environmental Hazards

ADR/RID:	no
IMDG:	no
IATA:	no

14.5 Special Precautions for User

See section 6 - 8

15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

16. Other Information

This product is intended for use only by persons with proper skills and at their own risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. The recommendations given in this data sheet are based on prudent application of professional judgment. The information is given as a guide but shall not be taken as complete. As this product may pose unknown hazards it should be used with caution. Since Abberior GmbH cannot control the conditions of use of the product, it shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SAFETY DATA SHEET DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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