

Material Safety Data Sheet



According to Regulation (EC) No. 1907/2006
Version 4.0, Revision Date: 19.01.2021

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

1.1 Product identifier

Product name: Fuse-It-mRNA (Fusogenic solution)
Product number: 60505, 60506
REACH No.: A registration number is not available for this mixture as the mixture 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 of the substance or mixture and uses advised against

Identified uses: For research use only

1.3 Details of the supplier of the material safety data sheet

Company: beniag GmbH
Huthmacherstr.25
52428 Juelich
Germany
Telephone: +49- 1578 0393499
E-mail address: info@beniag.de

1.4 Emergency telephone number

Emergency Phone: +49- 1578 0393499
(Business hours from Monday till Friday between 8 am and 5 pm (UTC+1h))

2 HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

2.3 Other hazards

None

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

No components need to be disclosed according to the applicable regulations.

4 FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If necessary seek medical advice.

In case of skin contact

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In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes.
In case of skin reactions, consult a physician.

In case of eye contact

Remove contact lenses. Immediately flush eyes with plenty of flowing water for at least 20 minutes, also under the eyelids. If necessary seek medical advice.

If swallowed

Do NOT induce vomiting unless directed to do so by medical personal. Never give anything by mouth to an unconscious person. Rinse mouth with water. If malaise develops, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

no data available.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Dilute spilled liquid with plenty of water. Wipe up with absorbent material.

6.4 Reference to other sections

For disposal see section 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including incompatibilities

Keep in properly labeled containers. Keep container tightly closed.

Store at 4°C for short time storage. For storage of up to 12 month store at -20°C.

7.3 Specific end use(s)

Refer to the instruction for proper and intended use.

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering control

Handle in accordance with good laboratory hygiene and safety practice.

Personal protective equipment

Eye protection

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

Skin protection

Handle with gloves. The glove material has to be impermeable and resistant to the product. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with the product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands.

Body protection

Wear lightweight protective clothing.

Respiratory protection

No special protective equipment required.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|---|---|
| a) Appearance | Form: liquid Color: Slightly blue or red depending on added labeling dye |
| b) Odor | odorless |
| c) Odor Threshold | not available |
| d) pH | 7,4 |
| e) Melting point/Freezing point | not available |
| f) Initial boiling point and boiling range | not available |
| g) Flash point | not applicable |
| h) Evaporation rate | not available |
| i) Flammability (solid, gas) | not available |
| j) Upper/lower flammability or explosive limits | not available |
| k) Vapor pressure | not available |
| l) Vapor density | not available |
| m) Density at 20°C | approximately 1 g/cm ³ |
| n) Solubility | Suspension in water, fully miscible in organic solvent |
| o) Partition coefficient: n-octanol/water | not available |
| p) Auto-ignition temperature | Product is not self-igniting |
| q) Decomposition temperature | not available |
| r) Viscosity | not available |
| s) Explosive Properties | not available |
| t) Oxidizing properties | not available |

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9.2 Other information
no data available

10 STABILITY AND REACTIVITY

- 10.1 Reactivity**
No dangerous reactions known under conditions of normal use, handling and storage.
- 10.2 Chemical stability**
Product is stable under normal storage conditions and if used according to specifications.
- 10.3 Possibility of hazardous reactions**
No dangerous reactions known under conditions of normal use, handling and storage.
- 10.4 Conditions to avoid**
no data available
- 10.5 Incompatible materials**
no data available
- 10.6 Hazardous decomposition products**
No dangerous decomposition products are known if used according to specifications.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity
no data available

Reproductive toxicity
no data available

Specific target organ toxicity – single exposure
no data available

Specific target organ toxicity – repeated exposure
no data available

Aspiration hazard
no data available

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Potential health effects

no data available

Signs and Symptoms of Exposure

no data available

12 ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14 TRANSPORT INFORMATION

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous good

IMDG: Not dangerous good

IATA: Not dangerous good

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex of MARPOL73/78 and the IBC Code

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15 REGULATORY INFORMATION

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

EU regulation

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

U.S. Federal Regulations

TSCA inventory: This product is being sent to you as a Research and Development product as defined by the Toxic Substances Act (TSCA) of 1976. Due to TSCA's R&D exemption, this product is not listed on the U.S. EPA's Toxic Substances Control Act (TSCA's) inventory. As a TSCA exempt R&D substance, this product must be used by or directly under the supervision of a technically qualified individual(s) as defined by TSCA. This product must not be used for commercial purposes or in formulations used for commercial purposes.

15.2 Chemical safety assessment

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

16 OTHER INFORMATION

Abbreviations and acronyms

| | |
|-------|---|
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| IMDG | International Maritime Code for Dangerous Goods |
| IATA | International Air Transport Association |
| PBT | persistent, bioaccumulative, toxic |
| REACH | Registration, Evaluation, Authorization and Restriction of Chemicals |
| RID | Regulations Concerning the International Carriage of Dangerous Goods by Rail |
| vPvB | Very persistent, very bioaccumulative |

Further Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as guide. All materials and mixtures may present unknown hazards and should be used with caution. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.