essedielle
ENOLOGIALIMENTAZIONE
SISTEMA DI GESTIONE PER LA SICUREZZA ALIMENTARE
CERTIQUALITY
UNI EN ISO 22000:2018
OPERATORE CONTROLLATO S 1262
CERTIFICATO ICEA BIOLOGICO
essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

SAFETY DATA SHEET

# FRUCTOSE

Revision No. 12, November 2022; Complies with Reg (EU) 2020/878

## INDEX

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE MANIFACTURING COMPANY 2
2. HAZARD IDENTIFICATION 2
3. COMPOSITION/INGREDIENT INFORMATION 2
4. FIRST AID MEASURES 3
5. FIRE-FIGHTING MEASURES 3
6. MEASURES IN CASE OF ACCIDENTAL RELEASE 3
7. HANDLING AND STORAGE 4
8. EXPOSURE CONTROL/INDIVIDUAL PROTECTION 4
9. PHISICAL AND CHEMICAL PROPERTIES 5
10. STABILITY AND RESPONSIVENESS 6
11. TOXICOLOGICAL INFORMATION 6
12. ECOLOGICAL INFORMATION 7
13. DISPOSAL CONSIDERATIONS 8
14. TRANSPORTATION INFORMATION 8
15. REGULATORY INFORMATION 8
16. OTHER INFORMATION 8

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE MANIFACTURING COMPANY

**1.1 Product identification**
**Trade name:** Fructose
**Chemical name and synonyms:** D (-)-Fructose

**1.2 Relevant identified uses of the substance/mixture and uses not recommended**
Relevant identified uses: food additive(s)
Appropriate use: all permitted uses

**1.3 Information about the supplier of the safety data sheet**
essedielle srl
S.P. 538 km. 6,950 - CALDARI
66026 ORTONA (CH)
ITALY
Phone: +39 (0) 85 9031315
Qualified persons responsible for the safety data sheet: laboratorio@essedielle.com

**1.4 Emergency telephone number:** essedielle srl +39 (0) 85 9031315 – 0039 3668134126
Poison Control Center
S.S. Annunziata Hospital – Chieti +39 0871 1551219

## 2. HAZARD IDENTIFICATION

**2.1 Classification of the substance or mixture**
No risks.

**2.2 Label elements**
Symbols: none
Indications of Danger: none
Cautionary Statements: none
Special provisions according to Annex XVII of REACH and subsequent adaptations: none

**2.3 Other hazards**
vPvB Substances: none - PBT Substances: none

## 3. COMPOSITION/INGREDIENT INFORMATION

**3.1 Substances**
Not applicable.

**3.2 Mixture**
Hazardous component to be reported substance for which Community legislation sets workplace exposure limits.

| Substance | Concentration | Classification | CAS | EINECS | Index | REACh |
|---|---|---|---|---|---|---|
| D (-) -Fructose | | | 57-48-7 | 200-333-3 | | |

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

## 4. FIRST AID MEASURES

**4.1 Description first aid measures**
Immediately move contaminated clothing away from the product.
Move people to be rescued away from the place of danger and lie down on the ground.
In case of irregular breathing or respiratory blockage, practice give respiration.
In case of inhalation: carry to a well-ventilated area; consult a doctor if any discomfort occurs.
If the person is unconscious, arrange to hold him/her during transport in a stable position on his/her side.
In case of skin contact: wash immediately with soap and water, rinsing thoroughly. In case of persistent skin irritation, seek medical advice.
In case of eye contact: wash immediately with running water with open eyelids for at least 15 minutes. Consult an ophthalmologist. Protect the uninjured eye.
In case of ingestion: rinse your mouth and drink plenty of water. Do not induce vomiting. Call a doctor immediately.

## 5. FIRE-FIGHTING MEASURES

**5.1 Extinguishing means**
**Suitable extinguishing means**
Water spray. Foam. Fire extinguisher powder. Carbon dioxide.
**Extinguishing media that should not be used for safety reasons**
Water jets.

**5.2 Special hazards from combustion products**
If heated or in the event of fire, the product may develop toxic fumes.
In the event of fire, the following may be released:
- Carbon monoxide (CO)
- CO2

**5.3 Recommendations for fire suppression operators**
Specific protective equipment:
- Wear a self-contained breathing apparatus.
- Wear full protective suits.

**5.4 Other information**
Cool endangered containers with a jet of water.

## 6. MEASURES IN CASE OF ACCIDENTAL RELEASE

**6.1 Personal precautions, personal protective equipment and emergency procedures**
Wear protective equipment. Keep unequipped persons away. In the case of vapors/dust/aerosols wear respiratory protection. High slip hazard due to spillage and spreading of product.

**6.2 Environmental precautions**
Prevent penetration into the soil/subsoil. Prevent runoff into surface water or sewage system.

**6.3 Methods and materials for containment and remediation**
Collect the liquid with absorbent material (sand, tripoli, acid binder, universal binder, sawdust). Carry out recovery or disposal in suitable tanks. Dispose of contaminated material in accordance with point 13. Carefully clean up the site of the accident, diluting thoroughly with water.

**6.4 Reference to other sections**
For information on safe handling, see Chapter 7.

For information on personal protective equipment see Chapter 8.
See Chapter 13 for information on disposal.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling**
Keep containers tightly closed.
Ensure good ventilation even at floor level (vapours are heavier than air).
**Information in case of fire and explosion:**
Keep away from heat sources, do not smoke.
Protect from heat.

**7.2 Conditions for safe storage, including any incompatibilities**
**Storage:**
**Storage and container requirements:**
Store only in original drums.
Suitable material for containers and pipes: aluminium.
Suitable material for containers and pipelines: ferrous alloys.
Suitable material for containers and pipelines: glass.
**Information on mixed storage:**
Do not store in contact with oxidising agents.
Store separately from alkalis (salt solutions).
Store separately from acids.
**Further information about storage conditions:**
Keep containers tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Protect from heat and direct sunlight.
Store container under vacuum.
The product is hygroscopic.
Protect from moisture and water.
Protect from frost.
**Maximum storage temperature:** < 40 °C
**Recommended storage temperature**: ~20 °C

## 8. EXPOSURE CONTROL/INDIVIDUAL PROTECTION

**8.1 Control parameters**
No occupational exposure limits available
DNEL exposure limit values: N.A.
PNEC exposure limit values: N.A.

**8.2 Exposure controls**

**Eye protection**
Wear safety glasses with side shields according to EN 166. Operate according to good working practices in any case.

**Skin protection**
No special precautions are required for normal use.

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

**Hand protection**
When handling pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3) When handling pure product wear full skin protection clothing (generic/anti-acid work dress, S3-EN ISO 20345 safety shoes) or other protective equipment as directed by the RSPP.

**Respiratory protection**
During manual operations in case of inadequate ventilation, use mask with dust filter - White, P (EN 143) unless otherwise specified by RSPP and/or environmental hygiene survey assessments.

**Exposure limits**
TLV - TWA: not known (5 mg/m3 referred to SO2) (# ACGIH 2003)

**Thermal hazards**
None.

**Environmental exposure controls**
None.

## 9. PHISICAL AND CHEMICAL PROPERTIES

### 9.1 Information on general physical and chemical properties

| | |
|---|---|
| **Appearance** | Colorless liquid |
| **Shape** | Viscous liquid |
| **Color** | Colorless |
| **Odor** | Odorless |
| **Olfactory threshold** | None |
| **Ph value** | 5-7 |
| **CHANGE OF STATE** | |
| **Melting point/interval** | 103 °C – 105 °C |
| **Boiling point/interval** | Not determined |
| **Flash point** | Not determined |
| **Flammability (solids, gases)** | Not determined |
| **Auto-ignition temperature** | Not determined |
| **Decomposition temperature** | Not determined |
| **Explosive properties** | Not determined |
| **Lower flammability limits** | Not determined |
| **Upper flammability limits** | Not determined |
| **Vapor pressure at 20°C** | Not determined |
| **Density at 20°C** | Not determined |
| **Relative density** | Not determined |
| **Vapor density at 20°C** | Not determined |
| **Evaporation rate** | Not determined |
| **Solubility in / Miscibility with water** | Not determined |
| **Specific rotation** | Not determined |
| **Partition coefficient: n-octanol/water** | - 1,75 |
| **Dynamic Viscosity at 20 °C** | Not determined |
| **Kinematic Viscosity** | Not determined |

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

### 9.2 Other information

| | |
|---|---|
| **Molecular mass** | Not determined |
| **Conductivity** | Not determined |
| **Liposolubility** | Not determined |
| **Particular properties groups of substances** | |
| **Other Useful Information** | None |

## 10. STABILITY AND RESPONSIVENESS

**10.1 Responsiveness**
Not determined.

**10.2 Chemical stability**
Stable
**Thermal decomposition/ conditions to be avoided:**
Stable at room temperature.
Do not heat to avoid thermal decomposition.

**10.3 Possibility of dangerous reactions**
Polymerisation with heat development.
Reactions with oxidants.
Reactions with acids.
If heated above decomposition temperature, toxic vapours may be released.

**10.4 Conditions to be avoided**
Humidity
Extremely high temperatures

**10.5 Incompatible materials**
Strong oxidants
Strong alkalis
Strong acids
Water

**10.6 Hazardous decomposition products**
Carbon monoxide and carbon dioxide
Toxic gases/vapors
Flammable gases/vapors

## 11. TOXICOLOGICAL INFORMATION

**11.1 Information on hazard classes defined in Regulation (EC) No. 1272/2008**
Toxicological information regarding the mixture: the product is not toxic.

Unless otherwise specified, the data required by Regulation 453/2010/EC below are intended to be undetermined:

ATE (mix) oral = ∞
ATE (mix) dermal = ∞
ATE (mix) inhal = ∞

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

(a) acute toxicity: based on available data, the classification criteria are not met.
(b) corrosion / skin irritation: based on available data the classification criteria are not met.
(c) severe eye injury/irritation: based on available data the classification criteria are not met.
(d) respiratory or skin sensitization: based on available data the classification criteria are not met.
(e) germ cell mutagenicity: based on available data the classification criteria are not met.
(f) carcinogenicity: based on available data the classification criteria are not met.
(g) reproductive toxicity: based on available data the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposure: based on available data the classification criteria are not met.
(j) Aspiration hazard: based on available data the classification criteria are not met.

**LD/LC50 values relevant for classification:**
Ingestion - LD50 rat (mg/kg/24h bw): >11500 mg/kg
Skin contact - LC50 rat/rabbit (mg/kg/24h bw): > 10000, ≥ 56750 mg/kg (Cavia porcellus)
Inhalation - LD50 rat (mg/l/4h): >580

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity**
**Aquatic toxicity**
EC 50 (24 h) >10000 mg/l (daphnia magna)
EC 50 (3 h) >1000 mg/l (activated sludge) (OECD 209)
LC 50 (96 h) >1000 mg/l (fish)
54000 mg/l (Oncorhynchus mykiss)
≥ 885 mg/l (Pimephales promelas)
>1000 mg/l (/) (other aquatic organisms)
54000 mg/l (Salmo gairdneri)
LC 50 (48 h) 1955 mg/l (daphnia magna)

**12.2 Persistence and degradability**
Biodegradable. Degree of elimination: OECD 301 D 82 % (/) (20d)

**12.3 Bioaccumulation potential**
Based on the n-octanol/water distribution coefficient, no significant accumulation in organisms is to be expected.

**12.4 Mobility in soil**
No further information available.
**Additional environmental information:**
CBS values: 1.16 g O2/g (ISO 15705)
BSB5 values: 0.87 g O2/g
**Further indications:**
Water hazard class 1 (D) (Classification according to lists): slightly hazardous for water.
Do not allow to enter ground water, water course or sewage system.

**12.5 Results of PBT and vPvB assessment**
vPvB substances: none - PBT substances: none

**12.6 Other adverse effects**
No further information is available.

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

## 13. DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods**
**PRODUCT**
Do not dispose of the product together with household waste. Do not allow to enter drains.
**CONTAMINATED PACKAGING**
Dispose of in accordance with the constituent material.

**13.2 HP Phrases**
None

## 14. TRANSPORTATION INFORMATION

**14.1 UN Number**
Non-dangerous good within the meaning of transport regulations.

**14.2 UN proper shipping name**
N.A.

**14.3 Transport hazard class(es)**
N.A.

**14.4 Packing group**
N.A.

**14.5 Environmental hazards Marine pollutant**
No

**14.6 Special precautions for users**
N.A.

**14.7 Transport of bulk according to MARPOL Annex II and the IBC Code**
N.A.

## 15. REGULATORY INFORMATION

**15.1 Health, safety and environmental regulations and legislation specific to the substance or mixture**
Labelling according to Regulation (EC) No 1272/2008 GHS label elements
**National provisions:**
Water hazard class:
Water hazard class 1 (Listed classification): slightly hazardous for water.

**15.2 Chemical safety assessment**
A chemical safety assessment has not been carried out

## 16. OTHER INFORMATION

This sheet cancels and replaces any previous edition.

The data are given to the best of our current knowledge; however, they do not represent any guarantee of the product characteristics and do not substantiate any contractual legal relationship. The information provided in this document is based on our knowledge of the product in question at the date of compilation and is given in good faith and to the best of our

**essedielle srl**
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

experience. It is not, however, to be interpreted as technical specifications or as guaranteed specific properties.
In no event shall we be liable for damages or consequences of any kind, whether direct or indirect, resulting from the use of this information.
Compliance with all current and applicable laws, regulations and directives is the responsibility of the recipient and user of the product. They should also make their own determinations.
The suitability of the product for particular uses or applications.

**Emergency Numbers**
European Emergency Number: 112