

Safety Data Sheet

Creation date: 6-Feb-2015

Revision date: 26-May-2017

Revision Number: 3



SECTION 1:

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

1.1) Product identifier

Substance name	FeSSIF-V2
Chemical characterization	Mixture of sodium taurocholate, glycerol monooleate, soybean lecithin and sodium oleate
EC No.	Sodium taurocholate 205-653-7; glycerol monooleate 247-038-6; soybean lecithin 310-129-7; sodium oleate 205-591-0
REACH Registration No.	Not available
CAS No.	Sodium taurocholate 145-42-6; glycerol monooleate 25496-72-4; soybean lecithin 8030-76-0; sodium oleate 143-19-1
Molecular formula	Sodium taurocholate $C_{26}H_{45}NO_7S.Na$; glycerol monooleate $C_{21}H_{40}O_4$; soybean lecithin N/A (not applicable); sodium oleate $C_{18}H_{34}O_2.Na$;
Appearance	White to slightly yellow, free flowing powder

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

Relevant identified uses	Laboratory chemicals (for solubility and dissolution testing)
Sector of use	SU24 - Scientific research and development
Product category	PC21 - Laboratory chemicals
Process categories	PROC15 - Use as laboratory reagent
Environmental release category	ERC8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
Uses advised against	No information available

1.3) Details of the supplier of the safety data sheet

Company biorelevant.com
Suite 4
QMB Innovation Centre
42 New Road
London
E1 2AX
United Kingdom

E-mail address sds@biorelevant.com

Phone +44 (0)20 7790 5328

1.4) Emergency telephone number

Company phone number
+44 (0)20 7790 5328

Opening hours
9.00 – 17.00 Monday-Friday (GMT)

Language
English

SECTION 2: HAZARDS IDENTIFICATION

2.1) Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No1272/2008 (CLP)

Physical hazards

Flammable solid – Category 2, code H228

Health hazards

Dermal : Causes skin irritation – Category 2, code H315

Eyes : Causes serious eye irritation – Category 2, code H319

Inhalation : May cause respiratory irritation – Category 3, code H335

Environmental hazards

The classification criteria are not met, the product is not known to be hazardous to the environment.

2.2) Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal word: Warning

Hazard statements

H228 – Flammable solid

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H335 – May cause respiratory irritation

Precautionary statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P240 - Ground/bond container and receiving equipment.

P241 - Use explosion-proof electrical/ventilating/lighting/laboratory/equipment.

P261 - Avoid breathing dust.

P264 - Wash hands or affected area(s) thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use in a well-ventilated area or inside a fume hood.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

P302 + P352 + P321 + P332 + P313 + P362 - IF ON SKIN: Wash with plenty of soap and water. Specific treatment (see Section 4 on this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

P304 + P340 + P312 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

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

P370 + P378 - In case of fire: Use dry chemical, carbon dioxide, water spray or alcohol resistant foam for extinction.

2.3) Other hazards

No information available

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1) Substance Not applicable

3.2) Mixtures

Component	CAS-No	EC-No	Weight % range	CLP Classification – Regulation (EC) No 1272/2008
Sodium taurocholate	145-42-6	205-653-7	56.4% - 62.4%	Skin irritation 2 (H315) Respiratory irritation 3 (H335) Eye irritation 2 (H319)
Glycerol monooleate	25496-72-4	247-038-6	20.2% - 22.3%	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.
Soybean lecithin	8030-76-0	310-129-7	16.1% - 17.7%	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.
Sodium oleate	143-19-1	205-591-0	2.5% - 2.7%	According to the majority of notifications provided by companies to ECHA in CLP notifications no hazards have been classified.

SECTION 4: FIRST AID MEASURES

4.1) Description of first aid measures

General Notes	If symptoms persist, call a physician.
Inhalation	If inhaled, move to fresh air. Remove contaminated clothing and loosen remaining clothing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention. Contact a poison control centre. Remove material from eyes, skin and clothing.
Skin contact	If on skin, flush the area with plenty of water. Remove contaminated clothing. Wash clothing before re-use. Get medical attention.
Eye contact	If in eyes, immediately flush with plenty of water for at least 15 minutes. Remove material from skin and clothing. Seek medical attention.
Ingestion	If ingested, rinse mouth with water. Give plenty of water to drink. If vomiting occurs give further water. Seek medical advice.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Causes eye and skin irritation.

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

Note to physician Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

5.1) Extinguishing media

Suitable extinguishing media	Use dry chemical, carbon dioxide, water spray or alcohol resistant foam.
Unsuitable extinguishing media	No information available.

5.2) Special hazards arising from the substance or mixture

Hazardous Combustion Products	Carbon monoxide (CO), Carbon dioxide (CO ₂).
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5.3) Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1) Personal precautions, protective equipment and emergency procedures

Use personal protective equipment to prevent contamination of skin, eyes and personal clothing. Ensure adequate ventilation. Avoid dust formation. Remove ignition sources.

6.2) Environmental precautions

Do not discharge into the drains/surface waters/groundwater. See Section 12 for additional ecological information.

6.3) Methods and material for containment and cleaning up

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in a suitable, closed container for disposal.

6.4) Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

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SECTION 7: HANDLING AND STORAGE

7.1) Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust, vapour, mist, or gas. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

7.2) Conditions for safe storage, including any incompatibilities

Keep away from sources of ignition. Store in a tightly closed container in a refrigerator and protect from light and humidity for stability purposes. Incompatible materials are: strong oxidizing agents, strong bases.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1) Control parameters

National occupational exposure limits have not been developed for this material.

8.2) Exposure controls

Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

Personal protective equipment

Eyes	Wear chemical goggles (European standard - EN 166) and have access to eye baths immediately available.
Skin	Wear appropriate gloves to prevent skin exposure (minimum requirement). Wash immediately if skin is contaminated.
Clothing	Wear appropriate personal protective equipment.
Respiratory protection	Respiratory protection programs must comply with 29 CFR 1910.134 or comparable local standard.
Environmental	Do not allow material to contaminate ground water system.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1) Information on basic physical and chemical properties

Appearance	White to slightly yellow powder solid
Odour	Not distinctive
Odour threshold	Not applicable
pH	7.6 9.8 g/L aq. solution (typical FeSSIF-V2 conc.)
Melting point/range	No information available
Boiling point/range	No information available
Flash point	No information available
Evaporation rate	Not applicable / Solid
Flammability	No information available
Explosion limits	No information available
Vapour pressure	Not applicable
Vapour density	Not applicable / Solid
Relative density	No information available
Solubility	≈400 g in 1 litre of water (20 °C)
Partition coefficient	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	Not applicable / Solid
Explosive properties	No information available
Oxidising properties	No information available

9.2) Other information

No other relevant information to be added to Section 9.

SECTION 10: STABILITY AND REACTIVITY

10.1) Reactivity

No known hazardous reactions.

10.2) Chemical stability

Stable at refrigerated conditions in closed containers under normal storage and handling conditions.
Product is hygroscopic. Protect from moisture.

10.3) Possibility of hazardous reactions

Hazardous polymerisation will not occur. No hazardous reactions known under normal processing.

10.4) Conditions to avoid

Avoid dust formation. Incompatible products. Excess heat: do not expose to heat or ignition sources.
Avoid strong oxidizing and reducing agents.

10.5) Incompatible materials

Strong oxidising agents. Strong reducing agents.

10.6) Hazardous decomposition products

Nitrogen oxides, carbon monoxide, carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1) Information on toxicological effects

No experimental toxicological data are available for the mixture.

Data for the only known hazardous component of the mixture, sodium taurocholate, is as follows:

Acute toxicity	No data available
Skin corrosion / irritation	Causes skin irritation (Category 2)
Serious eye damage / irritation	Causes reversible eye irritation (Category 2)
Respiratory or skin sensitisation	May cause irritation to the respiratory system (Category 3), no skin sensitisation data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	Not applicable / Solid

SECTION 12: ECOLOGICAL INFORMATION

12.1) Toxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

12.2) Persistence and degradability

Highly soluble in water: persistence is unlikely.

12.3) Bioaccumulative potential

No data available for assessment.

12.4) Mobility in soil

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility and thus mobile in soils.

12.5) Results of PBT and vPvB

No data available for assessment.

12.6) Other adverse effects

Endocrine disruptor information	This product does not contain any known or suspected endocrine disruptors.
Persistent organic pollutant	This product does not contain any known or suspected substance.
Ozone depletion potential	This product does not contain any known or suspected substance.

12.7) Other information

No other relevant information to be added to Section 12.

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1) Waste treatment methods

Waste from residues/unused products	Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.
Contaminated Packaging	Dispose of container to a hazardous or special waste collection point.
European Waste Catalogue (EWC)	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not dispose of waste into sewer. Solutions with low pH-value must be neutralized before discharge.

SECTION 14: TRANSPORT INFORMATION

14.1) UN number	Not regulated as a hazardous material
14.2) UN proper shipping name	Not regulated as a hazardous material
14.3) Transport hazard class(es)	Not regulated as a hazardous material
14.4) Packing group	Not regulated as a hazardous material
14.5) Environmental hazards	Not regulated as a hazardous material
14.6) Special precautions for user	No special precautions required
14.7) Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

This substance is not listed in the Annex I of Directive 96/82/CE.

15.2) Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: ADDITIONAL INFORMATION

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since we cannot control the conditions under which the product may be used, each user must review the SDS prior to usage in the context of the intended use in order to handle and employ the product in their workplace.

If clarification is needed to ensure an appropriate assessment can be made, the user should contact us.

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