SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 02/07/2018 Version 1.0

SECTION 1.Identification

Product identifier

Product number	632128
Product name	3T3/A31 Cell Lysate (murine fibroblast cell line)

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

Identified uses	Use restricted under TSCA to research and development or as analytical reagent. Uses regulated under FDA or FIFRA are not affected. Reagent for analysis

Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.
Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Eye irritation, Category 2A, H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms

Signal Word

Warning

Hazard Statements

H319 Causes serious eye irritation.

Precautionary Statements

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

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

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Aqueous solution of inorganic and organic compounds.

Hazardous ingredients

Chemical name (Concentration)
CAS-No.
glycerine (>= 1 % - < 5 %)
56-81-5

Exact percentages are being withheld as a trade secret.
2-amino 2-(hydroxymethyl)propane 1,3-diol hydrochloride (>= 1 % - < 5 %)
1185-53-1

Exact percentages are being withheld as a trade secret.
polymer of ethylene gylcol and nonyl phenol (>= 1 % - < 5 %)
9016-45-9

Exact percentages are being withheld as a trade secret.
Sodium fluoride (>= 0.1 % - < 1 %)
7681-49-4

Exact percentages are being withheld as a trade secret.
phenylmethanesulfonyl fluoride (>= 0.1 % - < 1 %)
329-98-6

Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures

Description of first-aid measures

Inhalation
After inhalation: fresh air.

Skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

Eye contact
After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

Ingestion
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

irritant effects

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed.

Store at -20°C (-3°F). Transport with dry ice.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
glycerine 56-81-5			
OSHA_TRANS	PEL:	15 mg/m³	Form of exposure: Total dust.
	PEL:	5 mg/m³	Form of exposure: Respirable fraction.
Z1A	Time Weighted Average (TWA):	10 mg/m³	Form of exposure: Total dust.
	Time Weighted Average (TWA):	5 mg/m³	Form of exposure: Respirable fraction.

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material:	butyl-rubber
Glove thickness:	0.7 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0.40 mm
Break through time:	> 10 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 730 Camatril® - Velours (splash contact).
This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment:

protective clothing

Respiratory protection

required when vapors/aerosols are generated.
Recommended Filter type: filter ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These measures have to be properly documented.

SECTION 9. Physical and chemical properties

Physical state	liquid
Color	clear colorless
Odor	No strong odor known.
Odor Threshold	No information available.
pH	No information available.
Melting point	No information available.
Boiling point	No information available.
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Density	No information available.
Relative density	No information available.
Water solubility	at 68 °F (20 °C) soluble
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.

Oxidizing properties	none

SECTION 10. Stability and reactivity

Reactivity
See below

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

Possibility of hazardous reactions
Violent reactions possible with:

The generally known reaction partners of water., Strong oxidizing agents

Conditions to avoid
Strong heating.

Incompatible materials
no information available

Hazardous decomposition products
in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact

Acute oral toxicity
Acute toxicity estimate: > 2,000 mg/kg
Calculation method

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute inhalation toxicity

Symptoms: Possible symptoms:, mucosal irritations

Eye irritation
Mixture causes serious eye irritation.

Specific target organ systemic toxicity - single exposure
The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure
The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard
Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC	No ingredient of this product present at levels greater than or

	equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

Ingredients

glycerine

Acute oral toxicity
LD50 Rat: 12,600 mg/kg (IUCLID)

Acute dermal toxicity
LD50 Rabbit: > 18,700 mg/kg (IUCLID)

Skin irritation
Rabbit
Result: No irritation
(IUCLID)

Eye irritation
Rabbit
Result: No eye irritation
OECD Test Guideline 405

Sensitization
Patch test: human
Result: negative
(IUCLID)

Germ cell mutagenicity
Genotoxicity in vitro
Ames test
Result: negative
(IUCLID)

2-amino 2-(hydroxymethyl)propane 1,3-diol hydrochloride

Acute oral toxicity
LD50 Rat: > 5,000 mg/kg
OECD Test Guideline 425

Acute dermal toxicity
LD50 Rat: > 5,000 mg/kg
OECD Test Guideline 402

Skin irritation
Rabbit
Result: No skin irritation
OECD Test Guideline 439

Eye irritation
In vitro study
Result: No eye irritation
OECD Test Guideline 437

Sensitization
Sensitization test (Magnusson and Kligman):
Result: negative
Method: OECD Test Guideline 406

Germ cell mutagenicity
Genotoxicity in vitro
Ames test
Salmonella typhimurium
Result: negative
Method: OECD Test Guideline 471

polymer of ethylene gylcol and nonyl phenol

Acute oral toxicity
LD50 Rat: 500 - 2,000 mg/kg (External MSDS)

Skin irritation
Rabbit
Result: No irritation
OECD Test Guideline 404

Eye irritation
Rabbit
Result: Severe irritations
OECD Test Guideline 405

Sodium fluoride

Acute oral toxicity
LD50 Rat: ca. 148.5 mg/kg
US-EPA(ECHA)

Sensitization
Buehler Test Guinea pig
Result: negative
(ECHA)

Germ cell mutagenicity
Genotoxicity in vivo
Mouse
Result: negative
(ECHA)

Genotoxicity in vitro
Mutagenicity (mammal cell test):
Result: negative
(ECHA)

Ames test
Salmonella typhimurium
Result: negative
(ECHA)

phenylmethanesulfonyl fluoride

Acute oral toxicity
LD50 Mouse: 200 mg/kg (RTECS)

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Ingredients

glycerine

Toxicity to fish
static test LC50 Oncorhynchus mykiss (rainbow trout): 54,000 mg/l; 96 h (ECHA)

Toxicity to daphnia and other aquatic invertebrates
static test EC50 Daphnia magna (Water flea): > 10,000 mg/l; 24 h (ECHA)

Biodegradability
63 %; 14 d
OECD Test Guideline 301C
Readily biodegradable.

Biochemical Oxygen Demand (BOD)
870 mg/g (5 d)
(External MSDS)

Chemical Oxygen Demand (COD)
1,160 mg/g
(External MSDS)

Theoretical oxygen demand (ThOD)
1,217 mg/g
(Lit.)

Ratio BOD/ThBOD
BOD5 71 %
(Lit.)

Ratio COD/ThBOD
95 %
(Lit.)

Partition coefficient: n-octanol/water
log Pow: -1.8 (25 °C)
(experimental)
Bioaccumulation is not expected. (Lit.)

2-amino 2-(hydroxymethyl)propane 1,3-diol hydrochloride

Toxicity to daphnia and other aquatic invertebrates
static test EC50 Daphnia magna (Water flea): > 117 mg/l; 48 h
Analytical monitoring: yes
OECD Test Guideline 202

Toxicity to algae
static test ErC50 Pseudokirchneriella subcapitata (green algae): 397 mg/l; 72 h
OECD Test Guideline 201 The value is given in analogy to the following substances:
Tris(hydroxymethyl)aminomethane

Toxicity to bacteria
EC50 activated sludge: > 1,000 mg/l; 3 h
OECD Test Guideline 209 The value is given in analogy to the following substances:
Tris(hydroxymethyl)aminomethane

Biodegradability
89 %; 28 d
OECD Test Guideline 301D
Readily biodegradable.

Partition coefficient: n-octanol/water
log Pow: -3.6 (20 °C)
OECD Test Guideline 107
Bioaccumulation is not expected.

Surface tension
61.4 mN/m
at 20 °C
Method: OECD Test Guideline 115

polymer of ethylene gylcol and nonyl phenol

Toxicity to fish
LC50 Danio rerio (zebra fish): > 1 - 10 mg/l; 96 h
OECD Test Guideline 203

Toxicity to bacteria
fermentation tube test EC50 Bacteria: > 1,000 mg/l(External MSDS)

Biodegradability
86 %; 28 d
OECD Test Guideline 301E
Readily biodegradable.

Chemical Oxygen Demand (COD)
2,180 mg/g
(External MSDS)

Sodium fluoride

Toxicity to fish
LC50 Gambusia affinis (Mosquito fish): 925 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates
EC50 Daphnia magna (Water flea): 338 mg/l; 48 h (IUCLID)

EC5 E.sulcatum: 101 mg/l(maximum permissible toxic concentration) (Hommel)

Toxicity to algae
IC50 Desmodesmus subspicatus (green algae): 850 mg/l; 72 h (IUCLID)

Toxicity to bacteria
EC0 Pseudomonas putida: 231 mg/l; 16 h (referred to the anion) (maximum permissible toxic concentration) (IUCLID)

EC50 activated sludge: 2,930 mg/l; 3 h
ISO 8192 (IUCLID)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
static test NOEC Daphnia magna (Water flea): 8.9 mg/l; 21 d
(ECHA)

phenylmethanesulfonyl fluoride

Partition coefficient: n-octanol/water
log Pow: 2.7 (25 °C)
EPI Suite™
Bioaccumulation is not expected.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

polymer of ethylene gylcol and nonyl phenol	9016-45-9	*1 %*

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Ingredients

Ethylenediaminetetraacetic acid
Sodium fluoride

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Ingredients

Ethylenediaminetetraacetic acid
Sodium fluoride

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

DEA List I

Not listed

DEA List II

Not listed

TSCA 12b

Ingredients

polymer of ethylene gylcol and nonyl phenol	9016-45-9

US State Regulations

Massachusetts Right To Know

Ingredients

glycerine

Pennsylvania Right To Know

Ingredients

glycerine
polymer of ethylene gylcol and nonyl phenol

New Jersey Right To Know

Ingredients

glycerine
polymer of ethylene gylcol and nonyl phenol
Sodium fluoride

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

TSCA:	Not Listed on TSCA inventory. For Research and Development Use only. Not For Manufacturing or Commercial Purposes.
DSL:	This product contains one or several components that are not on the Canadian DSL nor NDSL.

SECTION 16. Other information

Training advice
Provide adequate information, instruction and training for operators.

Labeling
Hazard pictograms

Signal Word
Warning

Hazard Statements
H319 Causes serious eye irritation.

Precautionary Statements
Response
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Full text of H-Statements referred to under sections 2 and 3.

H319	Causes serious eye irritation.

Key or legend to abbreviations and acronyms used in the safety data sheet
Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Millipore Ref. 12-305

Date of issue:02/07/2018

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

All rights reserved. Millipore and the "M" Mark are registered trademarks of Merck KGaA, Darmstadt, Germany.