Safety Data Sheet

Revision Date 2023-12-26



Revision Number 8

1. Identification Product identifier Hepatocyte Maturation Medium Supplement (3B) **Product Name** Other means of identification **Product Code** SL0019 Synonyms No information available Recommended use of the chemical and restrictions on use Identified uses For research use only. Not for use in diagnostic procedures **Restrictions on use** No information available Details of the supplier of the safety data sheet Supplier USA: Takara Bio USA, Inc. 2560 Orchard Parkway San Jose, CA 95131, USA Phone: 800.662.2566/888.251.6618 Web: www.takarabio.com Emergency telephone number **Emergency telephone** In case of emergency, call PERS (Professional Emergency Resource Services) 1-800-633-8253 (US) or 801-629-0667 (international).

2. Hazard(s) identification

Product Classification Data

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance	Frozen liquid	Physical state	Liquid	Odor	No information available

Other information Causes mild skin irritation.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Chemical name	CAS No.	Weight-%	Trade secret
Acetic acid	64-19-7	0.1 - 1	*

4. First-aid measures				
Description of first aid measures				
Inhalation	Remove to fresh air.			
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.			
Skin contact	Wash skin with soap and water.			
Ingestion	Rinse mouth.			
Most important symptoms and effects, both acute and delayed				
Symptoms	Prolonged contact may cause redness and irritation.			
Indication of any immediate medica	al attention and special treatment needed			
Note to physicians	Treat symptomatically.			
	5. Fire-fighting measures			
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.			
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.			
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.			
Specific hazards arising from the chemical	No information available.			
Explosion Data Sensitivity to mechanical impact None.				

Sensitivity to static discharge Special protective equipment and precautions for fire-fighters	None. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.				
	6. Accidental release measures				
Personal precautions, protective equipment and emergency procedures					
Personal precautions	Ensure adequate ventilation.				
Methods and material for containment and cleaning up					
Methods for containment	Prevent further leakage or spillage if safe to do so.				
Methods for cleaning up	Pick up and transfer to properly labeled containers.				

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Acetic acid	TWA: 10 ppm	TWA: 10 ppm	IDLH: 50 ppm
64-19-7	STEL: 15 ppm	TWA: 25 mg/m ³	TWA: 10 ppm
		(vacated) TWA: 10 ppm	TWA: 25 mg/m ³
		(vacated) TWA: 25 mg/m ³	STEL: 15 ppm
			STEL: 37 mg/m ³

Appropriate engineering controls

Engineering controls

Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and	Liquid			
Physical state Appearance	Frozen liquid			
Color	No information available			
Odor	No information available			
Odor Threshold	No information available			
Property_	Values	Remarks • Method		
рН	No data available	None known		
Melting point / freezing point	No data available	None known		
Boiling point/boiling range (°C)	No data available	None known		
Flash point	No data available	Open cup		
Evaporation Rate	No data available	None known		
Flammability (solid, gas)	No data available	None known		
Flammability Limit in Air		None known		
Upper flammability limit:	No data available			
Lower flammability limit:	No data available			
Vapor pressure	No data available	None known		
Vapor density	No data available	None known		
Relative density	No data available	None known		
Water solubility	No data available	None known		
Solubility in other solvents	No data available	None known		
Partition coefficient	No data available	None known		
Autoignition temperature	No data available	None known		
Decomposition temperature		None known		
Kinematic viscosity	No data available	None known		
Dynamic Viscosity	No data available	None known		
Other information				
Explosive properties	No information available			
Oxidizing properties	No information available			
Softening point	No information available			
Molecular weight	No information available			
VOC content	No information available			
Liquid Density	No information available			
Bulk Density	No information available			
	10. Stability and read	tivity		
Reactivity	No information available.			

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to Avoid	None known based on information supplied.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.	
Eye contact	Specific test data for the substance or mixture is not available.	
Skin contact	Specific test data for the substance or mixture is not available. Causes mild skin irritation.	
Ingestion	Specific test data for the substance or mixture is not available.	
Symptoms related to the physical, chemical and toxicological characteristics		
Symptoms	Prolonged contact may cause redness and irritation.	
Acute toxicity		
Numerical measures of toxicity		

The following values are calculated based on chapter 3.1 of the GHS documentATEmix (dermal)99,999.00 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Acetic acid 64-19-7	= 3310 mg/kg (Rat)	= 1060 mg/kg (Rabbit)	= 11.4 mg/L (Rat)4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Causes mild skin irritation.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.

STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Other adverse effects	No information available.
Interactive effects	No information available.

12. Ecological information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Acetic acid 64-19-7	-	LC50: =79mg/L (96h, Pimephales promelas) LC50: =75mg/L (96h, Lepomis macrochirus)	-	EC50: =65mg/L (48h, Daphnia magna)

Persistence and degradability No information available.

Bioaccumulation

There is no data for this product.

Component Information

Chemical name	Partition coefficient		
Acetic acid	-0.17		
64-19-7			

Other adverse effects

No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
California Hazardous Waste Status	This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT

Not regulated

15. Regulatory information

International Inventories

TSCA

*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

DSL/NDSL	
EINECS/ELINCS	
ENCS	
IECSC	
KECL	
PICCS	
AICS	

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

 $\ensuremath{\text{PICCS}}$ - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic acid 64-19-7	5000 lb	-	-	Х

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Acetic acid 64-19-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Acetic acid	X	Х	Х
64-19-7			

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information						
NFPA HMIS	Health hazar Health hazar		Flammability Flammability		Instability 0 Physical hazards 0	Special hazards - Personal protection X
Key or legend to abbreviations and acronyms used in the safety data sheet Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION TWA Time weighted average STEL Short term exposure limit Ceiling Maximum limit value * Skin designation Key literature references and sources for data used to compile the SDS Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA) EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's PubMed database (NLM PUBMED) U.S. National Toxicology Program (NTP) Ventore Chemical Society (NLM PUBMED) Ventore Chemical Society (NLM PUBMED)						
Organization for E Organization for E	conomic Co-operation conomic Co-operation	and Deve and Deve	elopment Enviro elopment High P	nment, Hea roduction \	alth, and Safety Publication /olume Chemicals Progra ation Data Set	
Revision Date Revision Note		023-12-2 lo informa	6 ation available.			

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless

specified in the text.

End of Safety Data Sheet