

Reviewed: 19-Apr-2024

Expiry extended: 19-Apr-2027

Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 4376492

Product name FG, TUBE XTERMINATOR SOLUTION (2ML)

Company/undertaking identification

Life Technologies Corporation
5781 Van Allen Way
5250 Mainway Drive
PO Box 6482
Burlington, ONT
Carlsbad, CA 92008
CANADA L7L 6A4
+1 760 603 7200
800/263-6236

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887

Exposure, or Accident. Call CHEMTRECOutside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word WARNING

Hazard pictograms



Health hazards

Revision date Product code 24-Nov-2021 4376492

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Product name FG, TUBE XTERMINATOR SOLUTION (2ML)

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

H319 - Causes serious eye irritation

Precautionary Statements

Prevention

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

P264 - Wash hands thoroughly after handling

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

P337 + P313 - If eye irritation persists: Get medical advice/attention

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

<u>- 111/110</u>	
Health	2
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Chemical Name	CAS No.	Common name	EINECS-No	Weight-%
Copolymer of styrene & divinylbenzene, sulfonated	69011-20-7	Not applicable	-	20-30
in hyrogen form				

We recommend handling all chemicals with caution.

Revision date Product code 24-Nov-2021 4376492

SECTION 4: First aid measures

Description of first aid measures

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove and

wash contaminated clothing and gloves, including the inside, before re-use.

Immediate medical attention is required.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Immediate medical attention is required.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting

without medical advice. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist,

call a physician.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H319 - Causes serious eye irritation

Indication of any immediate medical attention and special treatment needed

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture

No data

Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Avoid contact with skin, eyes or clothing
Use personal protection equipment
See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

Revision date 24-Nov-2021 Product code 4376492

SECTION 7: Handling and storage

Precautions for safe handling

Always wear recommended Personal Protective Equipment. See section 8 for more information. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with local regulations.

Specific end use(s)

Research Use Only. Not for use in diagnostic procedures.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Copolymer of styrene &	None	None	None	None
divinylbenzene, sulfonated				
in hyrogen form				

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Copolymer of styrene &	None	None	None
divinylbenzene, sulfonated in			
hyrogen form			

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and

approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear laboratory coat for body protection.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state liquid
Color No data
Odor No data
Molecular Weight No data
Melting point / melting range °C No data

Melting point / melting range°C No data°F No dataBoiling point / boiling range°C No data°F No data

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

Flash point

No data

No data

No data

Vo data

Flash point °C No data °F No data
Autoignition Temperature °C No data °F No data
Decomposition temperature °C No data °F No data °F No data

Evaporation rate

Viscosity

Solubility

Partition coefficient:

No data

No data

No data

n-octanol/water

Vapor Pressure
Specific gravity
Relative density
Vapor density
No data
Vapor density
No data
Explosive properties
No data
Oxidizing properties
No data
Particle characteristics
No data

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoid None known.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No known hazardous decomposition products.

Power 5

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Copolymer of styrene & divinylbenzene, sulfonated in	No data available	No data available	No data available
hyrogen form			

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritation Irritating to eyes

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Toxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Copolymer of styrene &	No data available	No data available	No data available	No data available	No data available
divinylbenzene, sulfonated in hyrogen form					

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 24-Nov-2021 Product code 4376492 Product name FG, TUBE XTERMINATOR SOLUTION (2ML)

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number or ID number
UN proper shipping name
Transport hazard class(es)
Packing group
Not Applicable
Not Applicable
Not Applicable

Marine pollutant

No

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

Component	US TSCA
Copolymer of styrene & divinylbenzene, sulfonated in hyrogen	Listed
form	
69011-20-7 (20-30)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

US State Regulations

Revision date 24-Nov-2021 Product code 4376492 Product name FG, TUBE XTERMINATOR SOLUTION (2ML)

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

D2B - Toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Copolymer of styrene & divinylbenzene, sulfonated in	69011-20-7	Not Listed	Not Listed
hyrogen form			

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number 5

Revision date 24-Nov-2021

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

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

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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

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

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

Revision date 24-Nov-2021 Product code 4376492 Product name FG, TUBE XTERMINATOR SOLUTION (2ML)

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date Product code 24-Nov-2021 4376492



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 4376493

Product name BTL XTERMINATOR SOLUTION

Company/undertaking identification

Life Technologies Corporation

5781 Van Allen Way

PO Box 6482

Carlsbad, CA 92008

+1 760 603 7200

Life Technologies

5250 Mainway Drive

Burlington, ONT

CANADA L7L 6A4

800/263-6236

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887

Exposure, or Accident. Call CHEMTRECOutside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word WARNING

Hazard pictograms



Health hazards

Revision date Product code 23-Jun-2022 4376493

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Product name BTL XTERMINATOR SOLUTION

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

H319 - Causes serious eye irritation

Precautionary Statements

Prevention

P264 - Wash hands thoroughly after handling

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

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

P337 + P313 - If eye irritation persists: Get medical advice/attention

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

<u> </u>	
Health	2
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Chemical Name	CAS No.	Common name	EINECS-No	Weight-%
Copolymer of styrene & divinylbenzene, sulfonated	69011-20-7	Not applicable	-	15-40%
in hyrogen form				

We recommend handling all chemicals with caution.

Revision date Product code 23-Jun-2022 4376493

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Product name BTL XTERMINATOR SOLUTION

SECTION 4: First aid measures

Description of first aid measures

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove and

wash contaminated clothing and gloves, including the inside, before re-use.

Immediate medical attention is required.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Immediate medical attention is required.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting

without medical advice. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist,

call a physician.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H319 - Causes serious eve irritation

Indication of any immediate medical attention and special treatment needed

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture

No data

Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Avoid contact with skin, eyes or clothing
Use personal protection equipment
See section 8 for more information

Environmental precautions

No special environmental precautions required. Avoid discharge into drains and waterways whenever possible.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Always wear recommended Personal Protective Equipment. See section 8 for more information. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with local regulations.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Copolymer of styrene &	None	None	None	None
divinylbenzene, sulfonated				
in hyrogen form				

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Copolymer of styrene &	None	None	None
divinylbenzene, sulfonated in			
hyrogen form			

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and

approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear laboratory coat for body protection.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state liquid
Color No data
Odor No data
Odor Threshold No data
Molecular Weight No data
Melting point / melting range °C No d

Melting point / melting range°C No data°F No dataBoiling point / boiling range°C No data°F No data

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

No data

No data

Flash point °C No data °F No data
Autoignition Temperature °C No data °F No data
Decomposition temperature °C No data °F No data °F No data

Evaporation rate No data
Viscosity No data
Solubility No data
Partition coefficient: No data

n-octanol/water

Vapor PressureNo dataSpecific gravityNo dataRelative densityNo dataVapor densityNo dataExplosive propertiesNo dataOxidizing propertiesNo dataParticle characteristicsNo data

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoid None known.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No known hazardous decomposition products.

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Copolymer of styrene &	No data available	No data available	No data available
divinylbenzene, sulfonated in			
hyrogen form			

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.

Skin corrosion/irritation Serious eye damage/eye irritation

Serious eye damage/irritation Data are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Toxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Copolymer of styrene &	No data available	No data available	No data available	No data available	No data available
divinylbenzene, sulfonated in hyrogen form					

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

Revision date 23-Jun-2022 Product code 4376493 Product name BTL XTERMINATOR SOLUTION

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number or ID number
UN proper shipping name
Transport hazard class(es)
Packing group
Not Applicable
Not Applicable
Not Applicable

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

Component	US TSCA
Copolymer of styrene & divinylbenzene, sulfonated in hyrogen	Listed
form	
69011-20-7 (15-40%)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

US State Regulations

Revision date 23-Jun-2022 Page 7/9
Product code 4376493 Product name BTL XTERMINATOR SOLUTION

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

D2B - Toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Copolymer of styrene & divinylbenzene, sulfonated in hyrogen form	69011-20-7	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number 3

Revision date 23-Jun-2022

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

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

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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

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

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

Revision date 23-Jun-2022 Page 8/9
Product code 4376493 Product name BTL XTERMINATOR SOLUTION

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date Product code 23-Jun-2022 4376493



SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

Identification of the substance/preparation

Product code 4376494

Product name BTL XTERMINATOR SOLUTION 800ML

Company/Undertaking Identification

Life Technologies
5791 Van Allen Way
5250 Mainway Drive
PO Box 6482
Burlingont, ONT
Carlsbad, CA 92008
CANADA L7L 6A4
+1 760 603 7200
800/263-6236

24 hour Emergency Response: 866-536-0631

301-431-8585

Outside of the U.S. +1-301-431-8585

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

2. Hazards identification

GHS - Classification

Signal Word WARNING



Health Hazard

Serious Eye Damage/Eye Irritation Category 2

Physical Hazards

not hazardous

Hazard statements

H317 - May cause an allergic skin reaction

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Product name BTL XTERMINATOR SOLUTION 800ML

Precautionary statements

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

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

P264 - Wash hands thoroughly after handling

Principle Routes of Exposure/

Potential Health effects

Eyes Irritating to eyes.

Skin May cause skin irritation in susceptible persons.

InhalationMay be harmful by inhalation.IngestionMay be harmful if swallowed.

Specific effects

Carcinogenic effectsnoneMutagenic effectsnoneReproductive toxicitynoneSensitizationnone

Target Organ Effects None under normal use conditions

HMIS

Health	1
Flammability	0
Reactivity	0

3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
DOWEX MR-3 MIXED ION EXCHANGE RESIN	069011-20-7	-	15 - 40

We recommend handling all chemicals with caution.

4. First aid measures

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove and

wash contaminated clothing before re-use. Immediate medical attention is

required.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Immediate medical attention is required.

Ingestion Call a physician or Poison Control Centre immediately. Never give anything by

mouth to an unconscious person. Do not induce vomiting without medical advice.

Inhalation Move to fresh air. If not breathing, give artificial respiration. Call a physician or

Poison Control Centre immediately.

Notes to physician Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical.

Revision Date 12-Jun-2013 Product code 4376494 Page 2/6
Product name BTL XTERMINATOR SOLUTION 800ML

Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

Personal precautions Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use

personal protective equipment.

Methods for cleaning up Soak up with inert absorbent material.

Environmental precautions

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

See Section 12 for additional information.

7. Handling and storage

Handling Always wear reccommended Personal Protective Equipment. No special handling

advice required.

Storage Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

8. Exposure controls/personal protection

Exposure limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
DOWEX MR-3 MIXED ION EXCHANGE RESIN	none	none	none	none

Engineering measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

Respiratory protection In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection Impervious gloves.

Eye protectionSkin and body protection.
Safety glasses with side-shields.
Lightweight protective clothing.

Hygiene measuresHandle in accordance with good industrial hygiene and safety practice.

Environmental exposure

controls

Prevent product from entering drains. Do not allow material to contaminate ground

water system.

9. Physical and chemical properties

General Information

Form liquid

Appearance No information available Odor No information available

Revision Date 12-Jun-2013 **Product code** 4376494 Page 3/6
Product name BTL XTERMINATOR SOLUTION 800ML

Boiling Point/Range Melting point/range

Flash point

Autoignition temperature Oxidizing properties

Water solubility

°C no data available °C no data available °C no data available °C no data available No information available. °F no data available °F no data available °F no data available °F no data available

10. Stability and reactivity

Stable under normal conditions. **Stability**

soluble

Materials to avoid No information available. No information available. Hazardous decomposition

products

polymerization None under normal processing.

11. Toxicological information

Acute toxicity

Chemical Name	LD50 (oral,rat/mouse)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat/mouse)
DOWEX MR-3 MIXED ION EXCHANGE RESIN	no data available	no data available	no data available

Principle Routes of Exposure/

Potential Health effects

Eves Irritating to eyes.

Skin May cause skin irritation in susceptible persons.

Inhalation May be harmful by inhalation. May be harmful if swallowed. Ingestion

Carcinogenic effects none Mutagenic effects none Reproductive toxicity none Sensitization none

Target Organ Effects None under normal use conditions

12. Ecological information

Ecotoxicity effects No information available. **Mobility** No information available. Biodegradation No information available. **Bioaccumulation** No information available.

13. Disposal considerations

Dispose of in accordance with local regulations.

14. Transport information

12-Jun-2013 **Revision Date** Page 4/6 Product code 4376494 Product name BTL XTERMINATOR SOLUTION 800ML

IATA

Proper shipping name Not classified as dangerous in the meaning of transport regulations

Hazard class none
Subsidiary Class none
Packing group none
UN-No none

15. Regulatory information

Component	TSCA
DOWEX MR-3 MIXED ION EXCHANGE RESIN	-
069011-20-7 (15 - 40)	

U.S. Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.

U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
DOWEX MR-3 MIXED ION EXCHANGE RESIN	-	-	-	-	-

California Proposition 65

This product does not contain chemicals listed under Proposition 65

WHMIS Hazard Class

D2B Toxic materials



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. Other information

Reason for Revision (M)SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Revision Date 12-Jun-2013 Product code 12-Jun-2013 The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unkown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE.

End of Safety Data Sheet



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 4376495

Product name SAM™ SOLUTION

Company/undertaking identification

Life Technologies Corporation 5781 Van Allen Way PO Box 6482 Carlsbad, CA 92008 +1 760 603 7200 Life Technologies 5250 Mainway Drive Burlington, ONT CANADA L7L 6A4 800/263-6236

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887

Exposure, or Accident. Call CHEMTRECOutside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date 08-Apr-2021 Product code 4376495 Page 1/9 Product name SAM™ SOLUTION

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Revision date Product code 08-Apr-2021 4376495

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Page 3/9

Special hazards arising from the substance or mixture

Not known

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required.

08-Apr-2021

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

Revision date

See section 8 for more information.

Product code 4376495 Product name SAM™ SOLUTION

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and

approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state liquid
Color No data
Odor No data
Molecular Weight No data
Melting point / melting range °C No data

Melting point / melting range°C No data°F No dataBoiling point / boiling range°C No data°F No data

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

Flash point

No data

No data

No data

C No data

Flash point °C No data °F No data
Autoignition Temperature °C No data °F No data

Decomposition temperature °C No data °F No data °F No data

pH 6-8
Evaporation rate No data
Viscosity No data
Solubility No data
Partition coefficient: No data

n-octanol/water

Vapor PressureNo dataSpecific gravityNo dataRelative densityNo dataVapor densityNo dataExplosive propertiesNo dataOxidizing propertiesNo dataParticle characteristicsNo data

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoidNo information available.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

Revision date 08-Apr-2021 **Product code** 4376495

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) - single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) - repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Toxicity

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

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number or ID number
UN proper shipping name
Transport hazard class(es)
Packing group
Not Applicable
Not Applicable
Not Applicable

Marine Pollutant No

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

 Revision date
 08-Apr-2021
 Page 7/9

 Product code
 4376495
 Product name SAM™ SOLUTION

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Not regulated

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number 3

08-Apr-2021 Revision date

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

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

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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

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

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

AIHA - American Industrial Hygiene Association

4376495

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

Product code

IARC - International Agency for Research on Cancer

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Revision date 08-Apr-2021 Page 8/9 Product name SAM™ SOLUTION liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet

Revision date Product code

08-Apr-2021 4376495



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 4376496

Product name SAM™ SOLUTION

Company/undertaking identification

Life Technologies Corporation 5781 Van Allen Way PO Box 6482 Carlsbad, CA 92008 +1 760 603 7200 Life Technologies 5250 Mainway Drive Burlington, ONT CANADA L7L 6A4 800/263-6236

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887

Exposure, or Accident. Call CHEMTRECOutside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date 17-Jul-2023 Product code 4376496

Page 1/9
Product name SAM™ SOLUTION

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Revision date Product code 17-Jul-2023 4376496

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture

Not known

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

Product code

See section 8 for more information.

4376496

Revision date 17-Jul-2023 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and

approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear suitable protective clothing.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state liquid
Color No data
Odor No data
Molecular Weight No data
Melting point / melting range °C No data

Melting point / melting range°C No data°F No dataBoiling point / boiling range°C No data°F No data

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

Flash point

No data

No data

No data

No data

Flash point °C No data °F No data
Autoignition Temperature °C No data °F No data

Decomposition temperature °C No data °F No data °F No data

Evaporation rate
Viscosity
No data
Solubility
No data
Partition coefficient:
No data

n-octanol/water

Vapor PressureNo dataSpecific gravityNo dataRelative densityNo dataVapor densityNo dataExplosive propertiesNo dataOxidizing propertiesNo dataParticle characteristicsNo data

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoidNo information available.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) - single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) - repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Toxicity

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

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number or ID number
UN proper shipping name
Transport hazard class(es)
Packing group

Not Applicable
Not Applicable
Not Applicable

Environmental hazards

Not Hazardous

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

US State Regulations

California Proposition 65

Revision date

This product does not contain any Proposition 65 chemicals.

17-Jul-2023

Product code 4376496

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Not regulated

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number

Revision date 17-Jul-2023

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

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

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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

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

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

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Revision date 17-Jul-2023 Page 8/9
Product code 4376496 Product name SAM™ SOLUTION

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End of Safety Data Sheet



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 4376497

Product name SAM SOLUTION

Company/undertaking identification

Life Technologies Corporation 5781 Van Allen Way PO Box 6482 Carlsbad, CA 92008 +1 760 603 7200 Life Technologies 5250 Mainway Drive Burlington, ONT CANADA L7L 6A4 800/263-6236

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887

Exposure, or Accident. Call CHEMTRECOutside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

For research use only. Not for use in diagnostic procedures

SECTION 2: Hazards identification

GHS Classification

Signal Word

None

Hazard pictograms

None

Health hazards

Not Hazardous

Physical hazards

Not Hazardous

Revision date 23-Jun-2022 Product code 4376497

Page 1/9
Product name SAM SOLUTION

Environmental hazards

Not Hazardous

Hazard Statements

Not Applicable

Precautionary Statements

Prevention

Not Applicable

Response

Not Applicable

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	0
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Revision date Product code 23-Jun-2022 4376497

SECTION 4: First aid measures

Description of first aid measures

Skin contact Rinse skin with water. Immediate medical attention is not required.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Ingestion Not expected to present a significant ingestion hazard under anticipated conditions

of normal use. If you feel unwell, seek medical advice.

Inhalation Not expected to be an inhalation hazard under anticipated conditions of normal

use of this material. Consult a physician if necessary.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

Not Applicable

Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

No information available.

Special hazards arising from the substance or mixture

Not known

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

Product code

See section 8 for more information.

4376497

Revision date 23-Jun-2022 Page 3/9

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits Contains no substances with occupational exposure limit values.

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Revision date

Product code

Personal Protective Equipment

In case of insufficient ventilation wear respirators and components tested and Respiratory protection

approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Tight sealing safety goggles. Eye protection

Skin and Body Protection Wear suitable protective clothing.

Handle in accordance with good industrial hygiene and safety practice **Hygiene Measures**

Environmental exposure controls

4376497

No special environmental precautions required.

23-Jun-2022

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state liquid
Color No data
Odor No data
Molecular Weight No data
Melting point / melting range °C No data

Melting point / melting range°C No data°F No dataBoiling point / boiling range°C No data°F No data

Flammability (solid, gas)

Lower explosion limit

Upper explosion limit

Flash point

No data

No data

No data

C No data

Flash point °C No data °F No data
Autoignition Temperature °C No data °F No data
Decomposition temperature °C No data °F No data °F No data

pHNo dataEvaporation rateNo dataViscosityNo dataSolubilityNo dataPartition coefficient:No data

n-octanol/water

Vapor PressureNo dataSpecific gravityNo dataRelative densityNo dataVapor densityNo dataExplosive propertiesNo dataOxidizing propertiesNo dataParticle characteristicsNo data

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoidNo information available.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No data available.

 Revision date
 23-Jun-2022

 Product code
 4376497

Page 5/9 Product name SAM SOLUTION

SECTION 11: Toxicological information

Information on toxicological effects

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification.

Skin corrosion/irritationData are conclusive but insufficient for classification

Serious eye damage/irritation Data are conclusive but insufficient for classification

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) - single exposure

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(STOT) - repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Toxicity

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

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available.

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number or ID number
UN proper shipping name
Transport hazard class(es)
Packing group

Not Applicable
Not Applicable
Not Applicable

Environmental hazards

Not Hazardous

Special precautions for user

Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable.

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Revision date23-Jun-2022Page 7 / 9Product code4376497Product name SAM SOLUTION

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Not regulated

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number 4

Revision date 23-Jun-2022

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

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

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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

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

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

Revision date 23-Jun-2022 Page 8/9
Product code 4376497 Product name SAM SOLUTION

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet



Safety Data Sheet

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code 4379323

Product name XTERMINATOR(TM) SOLUTION

Company/undertaking identification

Life Technologies Corporation
5781 Van Allen Way
5250 Mainway Drive
PO Box 6482
Burlington, ONT
Carlsbad, CA 92008
CANADA L7L 6A4
+1 760 603 7200
800/263-6236

24 hour Emergency Response for Hazardous Materials Within the USA + Canada: 1-800-424-9300 and

[or Dangerous Goods] Incident. Spill, Leak, Fire, 1-703-527-3887

Exposure, or Accident. Call CHEMTRECOutside the USA + Canada: 1-703-741-5970

Country Specific Emergency Number (if available):

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SECTION 2: Hazards identification

GHS Classification

Signal Word WARNING

Hazard pictograms



Health hazards

Revision date

Product code

Serious eye damage/eye irritation Category 2

www.thermofisher.com

24-Jun-2019

4379323

Physical hazards

Not Hazardous

Environmental hazards

Not Hazardous

Hazard Statements

H319 - Causes serious eye irritation

Precautionary Statements

Prevention

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

P264 - Wash hands thoroughly after handling

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

P337 + P313 - If eye irritation persists: Get medical advice/attention

Storage

Not Applicable

Disposal

Not Applicable

Other hazards

Not Applicable

HMIS

Health	2
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Component	CAS No.	Common name	EINECS-No	Weight-%
Copolymer of styrene &	69011-20-7	-	=	15-40
divinylbenzene, sulfonated in				
hyrogen form				
69011-20-7 (15-40)				

We recommend handling all chemicals with caution.

Revision date Product code 24-Jun-2019 4379323

Page 2/9
Product name XTERMINATOR(TM) SOLUTION

SECTION 4: First aid measures

Description of first aid measures

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Remove and

wash contaminated clothing and gloves, including the inside, before re-use.

Immediate medical attention is required.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Immediate medical attention is required.

Ingestion Never give anything by mouth to an unconscious person. Do not induce vomiting

without medical advice. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. If symptoms persist,

call a physician.

Notes to Physician Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H319 - Causes serious eye irritation

Indication of any immediate medical attention and special treatment needed

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Unsuitable extinguishing media

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical. No information available.

Special hazards arising from the substance or mixture

None known

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Avoid contact with skin, eyes or clothing
Use personal protection equipment
See section 8 for more information

Environmental precautions

No special environmental precautions required. Avoid discharge into drains and waterways whenever possible.

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Always wear recommended Personal Protective Equipment. See section 8 for more information. Do not get in eyes, on skin, or on clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with local regulations.

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Copolymer of styrene &	None	None	None	None
divinylbenzene, sulfonated				
in hyrogen form				

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Copolymer of styrene &	None	None	None
divinylbenzene, sulfonated in			
hyrogen form			

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection In case of insufficient ventilation wear respirators and components tested and

approved under appropriate government standards.

Hand protection Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection Tight sealing safety goggles.

Skin and Body Protection Wear laboratory coat for body protection.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

°F No data

°F No data °F No data

°F No data

°F No data

Information on basic physical and chemical properties

Appearance liquid
Odor No data
Odor Threshold No data
Molecular Weight No data
pH No data
Melting point / melting range °C No data

Boiling point / boiling range
Flash point
C No data
C No data
Autoignition Temperature
C No data

Decomposition temperature °C No data **Evaporation rate** No data Flammability (solid, gas) No data **Upper explosion limit** No data Lower explosion limit No data **Vapor Pressure** No data Vapor density No data **Relative density** No data Specific gravity No data Solubility No data

n-octanol/water

Partition coefficient:

Viscosity No data Explosive properties No data Oxidizing properties No data

Other information

No data.

SECTION 10: Stability and reactivity

Reactivity None known.

Chemical stability Stable under normal conditions.

No data

Possibility of hazardous

reactions

Hazardous reaction has not been reported.

Conditions to avoid None known.

Incompatible materialsNo dangerous reaction known under conditions of normal use.

Hazardous decomposition

products

No known hazardous decomposition products.

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Copolymer of styrene &	No data available	No data available	No data available
divinylbenzene, sulfonated in			
hyrogen form			

Principal Routes of Exposure

Acute toxicity Data are conclusive but insufficient for classification

Skin corrosion/irritation Data are conclusive but insufficient for classification

Serious eye damage/irritation Irritating to eyes

Respiratory or skin

sensitization

Data are conclusive but insufficient for classification

Specific target organ toxicity Data are conclusive but insufficient for classification

(STOT) – single exposure

Specific target organ toxicity Data are conclusive but insufficient for classification (STOT) – repeated exposure

Carcinogenicity Data are conclusive but insufficient for classification

Germ cell mutagenicity Data are conclusive but insufficient for classification

Reproductive toxicity Data are conclusive but insufficient for classification

Aspiration hazard Data are conclusive but insufficient for classification

SECTION 12: Ecological information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Copolymer of styrene &	No data available	No data available	No data available	No data available	No data available
divinylbenzene, sulfonated					
in hyrogen form					

Mobility in soil No information available.

Persistence and degradability No information available.

Bioaccumulative potential No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects No information available.

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SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN number
UN proper shipping name
Transport hazard class(es)
Packing group

Not Applicable
Not Applicable
Not Applicable

Environmental hazards

Not Applicable

Special precautions for user

Not Applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not Applicable.

SECTION 15: Regulatory information

Component	US TSCA
Copolymer of styrene & divinylbenzene, sulfonated in hyrogen	Listed
form	
69011-20-7 (15-40)	

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

D2B - Toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Copolymer of styrene & divinylbenzene, sulfonated in hyrogen form	69011-20-7	Not Listed	Not Listed

SECTION 16: Other information

Reason for revision SDS sections updated.

Revision number 3

Revision date 24-Jun-2019

For research use only. Not for use in diagnostic procedures.

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

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End of Safety Data Sheet

Revision date Product code 24-Jun-2019 4379323