



SAFETY DATA SHEET

Revision Date **27-Mar-2012**

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

Product Name MSA Controls
Recommended Use For research use only
Registration Number No information available

1.1 Product Identifier

Catalog Number: CT1010
Supplier: MP Biomedicals, LLC
29525 Fountain Parkway
Solon, OH 44139
tel: 440-337-1200

Emergency Telephone Number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

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

2. HAZARDS IDENTIFICATION

GHS - Classification

Acute Oral Toxicity Category 5
Acute Dermal Toxicity Category 5

GHS Label elements, including precautionary statements

Physical Hazards Flammable liquids Category 2

Risk Code

R36 - Irritating to eyes.
R67 - Vapors may cause drowsiness and dizziness.



Signal Word

Warning

Precautionary Statements

P312 - Call a POISON CENTER/doctor/physician if you feel unwell
 P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 P233 - Keep container tightly closed
 P240 - Ground/Bond container and receiving equipment
 P241 - Use explosion-proof electrical/ventilating/lighting/equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P370 + P378 - In case of fire: Use .? for extinction
 P403 + P235 - Store in a well-ventilated place. Keep cool
 P501 - Dispose of contents/container to .?

NFPA rating:

NFPA Health: 2
NFPA Flammability: 3
NFPA Reactivity: 0
NFPA Special Note: -

Precautionary Statements Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection.

General advice

Skin Call a POISON CENTER or doctor/physician if you feel unwell.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

Fire In case of fire: Use CO2, dry chemical, or foam for extinction

Storage Store in a well-ventilated place. Keep cool

Disposal Dispose of contents of container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Synonyms: Not Available

Chemical Name	EC No.	CAS Number	Weight %	Classification (67/548)	Classification (Reg. 1272/2008)	REACH Registration Number
Isopropanol	Listed		90 - 100%	F; R11 Xi; R36 R67	GHS02 GHS07 (Dgr) H225 H319 H336 Flam. Liq. 2 (H225) STOT SE 3 (H336)	No data available
Proprietary A	Listed		0 - 10%	Xi		No data available
Proprietary B	Listed		0 - 10%	-		No data available
Proprietary C	Listed		0 - 10%	Xn		No data available
Proprietary D	Listed		0 - 10%	F; Xi		No data available

Proprietary E	Listed		0 - 10%	Xn; R21/22-48/20/22 T; R23 C; R34 N; R51-53 O; R7	Acute Tox. 4 (H312) GHS02 GHS06 GHS08 GHS05 GHS09 (Dgr) H242 H331 H312 H302 H373 H314 H411 23 (H242) 23 (Dgr) H242 H331 H312 H302 H373 H314 H411 23 (H312) 23 (H373) Acute Tox. 3 (H331)	No data available
---------------	--------	--	---------	---	---	-------------------

For the full text of the R phrases and H statements mentioned in this section, see Section 2

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General Advice	Immediate medical attention is not required. Show this safety data sheet to the doctor in attendance.
Eye Contact	Call a physician immediately. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Call a physician immediately.
Inhalation	Move to fresh air. If symptoms persist, call a physician.
Rinse mouth	Immediate medical attention is not required. Drink plenty of water. Do NOT induce vomiting.
Protection of First-aiders	Use personal protective equipment.

4.2 Most important symptoms and effects, both acute and delayed

Main Symptoms No information available

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

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

Standard procedure for chemical fires Water mist may be used to cool closed containers

Extinguishing media which must not be used for safety reasons

No information available

5.2 Special hazards arising from the substance or mixture

No information available.

5.3 Advice for firefighters

Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

See Section 12 for additional information.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water.

6.4 Reference to other sections

See Section 12 for additional information

7. HANDLING AND STORAGE

Storage

ROOM TEMPERATURE

7.1 Precautions for safe handling

Ensure adequate ventilation. Wear personal protective equipment. Remove and wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a cool, well-ventilated place

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

7.3 Specific end uses

Exposure Scenario

No information available

Other Guidelines

No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure Limits

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
Isopropanol		TWA: 400 ppm TWA: 999 mg/m ³ STEL: 500 ppm STEL: 1250 mg/m ³	STEL: 400 ppm STEL: 980 mg/m ³	STEL: 400 ppm STEL: 1000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³

Proprietary C		TWA: 10 mg/m ³ STEL: 30 mg/m ³	TWA: 10 mg/m ³		
---------------	--	---	---------------------------	--	--

Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Isopropanol		TWA: 200 ppm VLE- MP STEL: 400 ppm VLE- CD		TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³	TWA: 200 ppm TWA: 490 mg/m ³
Proprietary C		TWA: 2 mg/m ³ VLE- MP		TWA: 10 mg/m ³ STEL: 20 mg/m ³	TWA: 10 mg/m ³

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Isopropanol	STEL: 800 ppm STEL: 2000 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³ 200	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³	TWA: 900 mg/m ³ NDS NDSch: 1200 mg/m ³	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 150 ppm STEL: 306.25 mg/m ³	TWA: 200 ppm STEL: 400 ppm
Proprietary C	TWA: 10 mg/m ³ 2	TWA: 10 mg/m ³			TWA: 10 mg/m ³

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas..

Personal Protective Equipment

Eye Protection Tightly fitting safety goggles

Skin and Body Protection Long sleeved clothing. Impervious butyl rubber gloves. Hydrofluoric acid-resistant and solvent-resistant gloves (gloves made of viton*).. Solvent-resistant gloves (butylrubber).

Hand Protection Protective gloves

Respiratory Protection No special protective equipment required..

Environmental Exposure Controls Do not allow material to contaminate ground water system..

Hygiene Measures When using, do not eat, drink or smoke.. Remove and wash contaminated clothing before re-use..

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical State Liquid.

Physical Property Data

pH Value No data available
Flash Point No information available
Autoignition Temperature No data available
Melting/Freezing Point
Boiling Point (°C) No information available.
Vapor Pressure No data available
Vapor Density No information available
Water Solubility No data available
Evaporation Rate No data available.

Flammability (solid, gas)	No data available
Flammability Limits in Air	
upper flammability limit	No data available
lower flammability limit	No data available
Density	No data available
Specific Gravity	No data available.
Decomposition Temperature	No data available
Viscosity, Kinematic	No data available.
Viscosity, Dynamic	No data available.
Explosive Properties	No information available.
Oxidizing Properties	No information available
VOC Content (%)	No information available

9.2 Other Safety Information

Other Safety Information

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

None in particular

10.5 Incompatible Materials

None in particular

10.6 Hazardous Decomposition Products

None under normal processing.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity	Product does not present an acute toxicity hazard based on known or supplied information
Inhalation	No information available.
Eye Irritation	No information available.
Acute toxicity	0% of the mixture consists of ingredient(s) of unknown toxicity

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Isopropanol	4396 mg/kg (Rat)	12800 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Proprietary A	3000 mg/kg (Rat)	2000 mg/kg (Rabbit)	1721 mg/L (Rat) 4 h

Proprietary B	2050 µL/kg (Rat)	630 µL/kg (Rabbit)	
Proprietary C	890 mg/kg (Rat)		
Proprietary E	382 mg/kg (Rat)	500 mg/kg (Rat)	220 ppm (Rat) 4 h

Mutagenic Effects Contains no ingredient listed as a mutagen.

Carcinogenic Effects None known.

Reproductive Toxicity None known

Developmental Toxicity None known.

Aspiration hazard None known

12. ECOLOGICAL INFORMATION

12.1 Toxicity

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

Chemical Name	Ecotoxicity - Freshwater Algae - Acute Toxicity Data	Ecotoxicity - Freshwater Fish - Acute Toxicity Data	Ecotoxicity - Water Flea - Acute Toxicity Data
Isopropanol	EC50 (72 h) 1000 mg/L (Desmodesmus subspicatus) EC50 (96 h) 1000 mg/L (Desmodesmus subspicatus)	LC50 (96 h) 1400000µg/L (Lepomis macrochirus) LC50 (96 h) 11130mg/L (Pimephales promelas) static LC50 (96 h) 9640mg/L (Pimephales promelas) flow-through	EC50 (48 h) 13299 mg/L
Proprietary A		LC50 (48 h) 170mg/L (Leuciscus idus) static	EC50 (48 h) 380mg/L
Proprietary B		LC50 (96 h) 306 - 334mg/L (Pimephales promelas) flow-through LC50 (96 h) 88mg/L (Pimephales promelas) static	
Proprietary C	EC50 (72 h) 6 mg/L (Pseudokirchneriella subcapitata) EC50 (72 h) 0.42 mg/L (Desmodesmus subspicatus)	LC50 (48 h) 5mg/L (Oryzias latipes)	
Proprietary E		LC50 (96 h) 3.9mg/L (Oncorhynchus mykiss) static	EC50 (24 h) 7mg/L

12.2 Persistence and degradability

No data is available on the product itself

12.3 Bioaccumulative potential

No information available

Chemical Name	Log Pow
Isopropanol	0.05
Proprietary C	4.17

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors

13. DISPOSAL CONSIDERATIONS

Waste from Residues/Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Clean container with water Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IMDG/IMO

Proper Shipping Name Flammable liquids, n.o.s. (isopropanol solution)
Hazard Class 3
UN/ID No UN1993
Packing Group II

ICAO

Hazard class 3
UNID No. UN1993
Proper Shipping Name Flammable liquids, n.o.s. (isopropanol solution)
Packing Group II

ICAO/IATA

Hazard Class 3
UN/ID No. UN1993
Proper Shipping Name Flammable liquids, n.o.s. (isopropanol solution)
Packing Group II
EGR Code 128

DOT

Proper shipping name Flammable liquids, n.o.s. (isopropanol solution)
Hazard class 3
UN/ID No UN1993
Packing Group II

TDG

Proper Shipping Name Flammable liquids, n.o.s. (isopropanol solution)
Hazard Class 3
UN/ID No UN1993
Packing Group II

Canada - WHMIS: Classifications B2, D2B

14. TRANSPORT INFORMATION

MEX

Proper Shipping Name Flammable liquids, n.o.s. (isopropanol solution)
Hazard Class 3
UN/ID No UN1993
Packaging Group II

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	EINECS / ELINCS	DSL / NDSL	PICCS	ENCS	IECSC	AICS	KECL
Isopropanol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Proprietary A	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Proprietary B	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Proprietary C	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Proprietary D	Listed	Listed	Listed	Listed	Listed	Listed		
Proprietary E	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed

Legend

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

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

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

PICCS - Philippine Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

16. OTHER INFORMATION

Disclaimer

The information provided on this SDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text

End of Material Safety Data Sheet

Key literature references and sources for data

www.ChemADVISOR.com/