



TCA CYCLE STANDARD 1 MIX UNLABELED

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 04/03/2021

Revision date:

Version: 1.0

MSK-TCA1-US

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

1.1. Product identifier

Product form : Mixtures
Product name : TCA CYCLE STANDARD 1 MIX UNLABELED
Product code : MSK-TCA1-US

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin Irrit. 2 H315
Eye Irrit. 2 H319

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xi; R36/38

Full text of R-phrases: see section 16

GHS-US classification

Skin Irrit. 2 H315
Eye Irrit. 2 H319

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Hazard statements (CLP) : H315 - Causes skin irritation
H319 - Causes serious eye irritation

TCA CYCLE STANDARD 1 MIX UNLABELED

MSK-TCA1-US

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Precautionary statements (CLP) : P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS-US) :

P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
TRISODIUM CITRATE UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 68-04-2 (EC-No.) 200-675-3 (EC Index-No.)	18.69	Not classified
MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED	(CAS-No.) 207511-06-6 (EC-No.) 211-627-6 (EC Index-No.)	14.2	Not classified
DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED	(CAS-No.) 40951-21-1 (EC-No.) (EC Index-No.)	13.91	Not classified
ALPHA-KETOGLUTARIC ACID, DISODIUM SALT HYDRATE UNLABELED 90% CHEMICAL PURITY	(CAS-No.) 305-72-6 (EC-No.) 206-167-8 (EC Index-No.)	13.77	Not classified
SUCCINIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 150-90-3 (EC-No.) 205-778-7	11.74	Xi; R36/38 R67
FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 17013-01-3 (EC-No.) 241-087-7 (EC Index-No.)	11.59	Xi; R36/37/38
SODIUM L- LACTATE UNLABELED	(CAS-No.) 867-56-1 (EC Index-No.)	8.12	Not classified
SODIUM PYRUVATE UNLABELED	(CAS-No.) 113-24-6 (EC-No.) 204-024-4	7.97	Xi; R36/37/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
TRISODIUM CITRATE UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 68-04-2 (EC-No.) 200-675-3 (EC Index-No.)	18.69	Not classified
MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED	(CAS-No.) 207511-06-6 (EC-No.) 211-627-6 (EC Index-No.)	14.2	Not classified

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MSK-TCA1-US

Safety Data Sheet

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED	(CAS-No.) 40951-21-1 (EC-No.) (EC Index-No.)	13.91	Not classified
ALPHA-KETOGLUTARIC ACID, DISODIUM SALT HYDRATE UNLABELED 90% CHEMICAL PURITY	(CAS-No.) 305-72-6 (EC-No.) 206-167-8 (EC Index-No.)	13.77	Not classified
SUCCINIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 150-90-3 (EC-No.) 205-778-7	11.74	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H336
FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 17013-01-3 (EC-No.) 241-087-7 (EC Index-No.)	11.59	Skin Irrit. 2, H315 STOT SE 3, H335
SODIUM L- LACTATE UNLABELED	(CAS-No.) 867-56-1 (EC Index-No.)	8.12	Not classified
SODIUM PYRUVATE UNLABELED	(CAS-No.) 113-24-6 (EC-No.) 204-024-4	7.97	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335

Name	Product identifier	%	GHS-US classification
TRISODIUM CITRATE UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 68-04-2	18.69	Not classified
MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED	(CAS-No.) 207511-06-6	14.2	Not classified
DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED	(CAS-No.) 40951-21-1	13.91	Not classified
ALPHA-KETOGLUTARIC ACID, DISODIUM SALT HYDRATE UNLABELED 90% CHEMICAL PURITY	(CAS-No.) 305-72-6	13.77	Not classified
SUCCINIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 150-90-3	11.74	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336
FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY	(CAS-No.) 17013-01-3	11.59	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
SODIUM L- LACTATE UNLABELED	(CAS-No.) 867-56-1	8.12	Not classified
SODIUM PYRUVATE UNLABELED	(CAS-No.) 113-24-6	7.97	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.
First-aid measures after inhalation	: When symptoms occur: go into open air and ventilate suspected area. If not breathing give artificial respiration. Get medical advice/attention.
First-aid measures after skin contact	: Wash with plenty of soap and water. and soap. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.

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

Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

5.2. Special hazards arising from the substance or mixture

No additional information available

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MSK-TCA1-US

Safety Data Sheet

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5.3. Advice for firefighters

- Firefighting instructions : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid breathing vapors, mist, gas. Avoid dust formation.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

- Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

- For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Provide adequate ventilation to minimize dust and/or vapor concentrations.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Store in a well-ventilated place. Keep container tightly closed.
- Storage conditions : Store at room temperature away from light and moisture.

7.3. Specific end use(s)

- No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- No additional information available

8.2. Exposure controls

- Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.



- Materials for protective clothing : Wear suitable protective clothing and gloves.
- Hand protection : Wear suitable protective clothing and gloves.
- Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.
- Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.
- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Crystalline
- Color : White to off-white

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MSK-TCA1-US

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Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

See storage and expiration date on CoA.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED (40951-21-1)

LD50, intraperitoneal, mouse	4,500 mg/kg
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FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (17013-01-3)

LD50 oral rat	8000 mg/kg
ATE CLP (oral)	8000.000 mg/kg body weight

MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED (207511-06-6)

Additional information	LD50 Subcutaneous - Rat - 3,500 mg/kg Remarks: Peripheral Nerve and Sensation: Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral: Excitement. Behavioral: Muscle weakness.
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Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified

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MSK-TCA1-US

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity – single exposure	: Not classified
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
Symptoms/effects after inhalation	: May be harmful if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Product/Packaging disposal recommendations : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

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MSK-TCA1-US

Safety Data Sheet

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14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

TCA CYCLE STANDARD 1 MIX UNLABELED

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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SODIUM PYRUVATE UNLABELED (113-24-6)

SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
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TRISODIUM CITRATE UNLABELED 95% CHEMICAL PURITY (68-04-2)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED (40951-21-1)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (17013-01-3)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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SODIUM L- LACTATE UNLABELED (867-56-1)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED (207511-06-6)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
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SUCCINIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (150-90-3)

SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
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ALPHA-KETOGLUTARIC ACID, DISODIUM SALT HYDRATE UNLABELED 90% CHEMICAL PURITY (305-72-6)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
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15.2. International regulations

CANADA

TCA CYCLE STANDARD 1 MIX UNLABELED

Listed on the Canadian DSL (Domestic Substances List)

TCA CYCLE STANDARD 1 MIX UNLABELED

MSK-TCA1-US

Safety Data Sheet

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15.2.1. National regulations

No additional information available

15.3. US State regulations

TCA CYCLE STANDARD 1 MIX UNLABELED()	
U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

SODIUM PYRUVATE UNLABELED (113-24-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

TRISODIUM CITRATE UNLABELED 95% CHEMICAL PURITY (68-04-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED (40951-21-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (17013-01-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

SODIUM L- LACTATE UNLABELED (867-56-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED (207511-06-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

SUCCINIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (150-90-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

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MSK-TCA1-US

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ALPHA-KETOGLUTARIC ACID, DISODIUM SALT HYDRATE UNLABELED 90% CHEMICAL PURITY (305-72-6)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	No	

SODIUM PYRUVATE UNLABELED (113-24-6)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

TRISODIUM CITRATE UNLABELED 95% CHEMICAL PURITY (68-04-2)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

DL-2-HYDROXYGLUTARIC ACID, DISODIUM SALT UNLABELED (40951-21-1)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

FUMARIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (17013-01-3)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

SODIUM L- LACTATE UNLABELED (867-56-1)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

MALIC ACID, DISODIUM SALT MONOHYDRATE UNLABELED (207511-06-6)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

SUCCINIC ACID, DISODIUM SALT UNLABELED 95% CHEMICAL PURITY (150-90-3)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

ALPHA-KETOGLUTARIC ACID, DISODIUM SALT HYDRATE UNLABELED 90% CHEMICAL PURITY (305-72-6)
State or local regulations
U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R67	Vapors may cause drowsiness and dizziness
Xi	Irritant

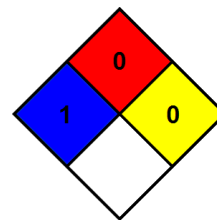
TCA CYCLE STANDARD 1 MIX UNLABELED

MSK-TCA1-US

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard	: 1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 0 Minimal Hazard
Physical	: 0 Minimal Hazard

CIL Multi-Solvent Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product