

ORTEC, INC.

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name

Trimethylene carbonate

CAS Number

2453-03-4

1.2 Relevant identified uses of the substance or mixture

Identified uses:

Manufacture of substances

1.3 Supplier Information

Company Address

Ortec, Inc.
505 Gentry Memorial Highway
Easley, SC 29640
USA
1-864-859-1471

Telephone Number

1.4 Emergency telephone number

Chemtrec 24 Hour Emergency Phone Number
International:

1-800-424-9300
1-703-527-3887

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Eye Damage/Irritation (Category 2A), H319

2.2 GHS Label elements, including precautionary statements

Pictogram(s)



Signal word

Warning

Hazard statement(s)

H302	Harmful if swallowed.
H319	Causes serious eye irritation.

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+ P312+P330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
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.
P501	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	1,3-Dioxan-2-one
Formula	C ₄ H ₆ O ₃
Molecular Weight	102.03 g/mol
CAS Number	2453-03-4
EC Number	Not available

Hazardous components

Component	Classification	Concentration
Trimethylene carbonate	Acute Tox. Oral 4 (H302); Eye Irrit. 2A (H319)	>99%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Immediately flush with plenty of water for at least 15 minutes, keeping eyelids open. If easy to do, remove contact lenses. Get medical attention.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described on the labeling, see section 2.2

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with eyes, skin, and clothing.

Use personal protective equipment. Avoid dust formation.

Avoid breathing vapors, mist or gas.

Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange for disposal without creating dust. Sweep up and shovel.

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Avoid inhalation of vapor or mist.
Provide appropriate exhaust ventilation at places where dust is formed.
Do not eat, drink or smoke in areas where material is stored or handled.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practices.
Wash hands before breaks and at the end of workday.
Provide readily accessible eye wash stations and safety showers.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

The type of protective equipment must be selected according to the concentration and amount of the substance at the specific workplace.

Respiratory protection

Wear appropriate respirator when ventilation is inadequate.
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a)	Appearance	White solid
b)	Odor	No data available
c)	Odor Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	42 - 44°C (108 - 111°F)
f)	Initial boiling point and boiling range	No data available
g)	Flash point	110°C (230°F)
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available

m)	Relative density	No data available
n)	Solubility(ies)	No data available
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available

9.2 Other safety information

No data available

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

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

No data available

In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

11.1 Routes of Exposure

No data available

11.2 Information on toxicological effects

Acute toxicity

No data available for oral, inhalation, or dermal acute toxicity

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Chronic toxicity

Respiratory or skin sensitization

No data available

Mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

No data available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste disposal

Product

Dispose of in a RCRA-licensed facility.

Do not discharge into drains/surface waters/groundwater.

Dispose of in accordance with national, state and local regulations.

Container or contaminated packaging

Empty containers may still contain hazardous residue. Dispose of as unused product in a licensed facility.

14. TRANSPORT INFORMATION

DOT (US) - Land Transport

Not classified as a dangerous good under transport regulations

IMDG - Sea Transport

Not classified as a dangerous good under transport regulations

IATA- Air Transport

Not classified as a dangerous good under transport regulations

Special Precautions

None assigned

15. REGULATORY INFORMATION

SARA 302 Components

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

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

16. OTHER INFORMATION

Further information

The information herein is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of knowledge and is only applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product or fitness of use. Final determination of suitability of any material is the sole responsibility of the user. Ortec, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.