

Safety Data Sheet

Castaldo® Moldoro #1 Jewelry Molding Rubber

SDS Revision Date: 15/01/2020



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

1.1. Product identifier

Product Identity Castaldo® Moldoro #1 Jewelry Molding Rubber
Alternate Names Castaldo® Moldoro #1 Jewelry Molding Rubber

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

Intended use See Technical Data Sheet.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name F. E. Knight Inc.
120 Constitution Blvd.,
Franklin, MA 02038. USA

Emergency

24 hour Emergency Telephone No. Chem-Tel: 1-800-255-3924 or 617-969-5399
Customer Service: F. E. Knight Inc. 508-520-1666

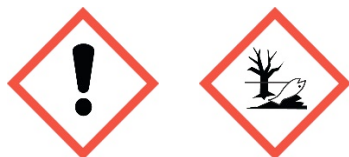
2. Hazard identification of the product

2.1. Classification of the substance or mixture

Skin Irrit. 3;H316 Causes mild skin irritation. (Not adopted by US OSHA)
Skin Sens. 1;H317 May cause an allergic skin reaction.
Aquatic Acute 1;H400 Very toxic to aquatic life.
Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Warning

H316 Causes mild skin irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.

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H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

- P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.

[Response]:

- P302+352 IF ON SKIN: Wash with plenty of soap and water.
- P313 Get medical advice / attention.
- P321 Specific treatment (see information on this label).
- P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.

[Storage]:

No GHS storage statements

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|---|------------|--|--------|
| Octadecanoic acid, zinc salt CAS Number: 0000557-05-1 | 1.0 - 10 | | [1][2] |
| Zinc oxide CAS Number: 0001314-13-2 | 1.0 - 10 | Aquatic Acute 1;H400 Aquatic Chronic 1;H410 | [1][2] |
| Zinc Sulfide CAS Number: 0001314-98-3 | 1.0 - 10 | | [1] |
| Thioperoxydicarbonic diamide, tetramethyl- CAS Number: 0000137-26-8 | 1.0 - 10 | Acute Tox. 4;H332 Acute Tox. 4;H302 STOT RE 2;H373 Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 | [1][2] |
| Mercaptobenzothiazole CAS Number: 0000149-30-4 | 0.10 - 1.0 | Skin Sens. 1;H317 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 | [1] |

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[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

| | |
|-------------------|---|
| General | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. |
| Inhalation | Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth. |
| Eyes | Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention. |
| Skin | Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. |
| Ingestion | Do not induce vomiting, give plenty of water. Seek medical attention. |

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

| | |
|-----------------|--|
| Overview | No specific symptom data available. See section 2 for further details. |
| Skin | May cause an allergic skin reaction. Causes mild skin irritation. (Not adopted by US OSHA) |

5. Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: TMTD may react with nitrosating agents to form nitrosamines - suspect carcinogens.

- Oxides of CO_x, NO_x and SO_x.
 - Unburned hydrocarbons, trace oxides, acetic acid, oxides of Zinc, undetermined aliphatic fragments and fumes of components may exist during decomposition.
- Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

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Means of Extinction:

If exposed to flames, acrid fumes and black smoke are emitted. Use water, dry chemical, carbon dioxide, foam, etc.

Recommended Fire Fighting Protective Gear:

A self-contained breathing apparatus (SCBA) in positive pressure mode and full fire fighting protective gear should be worn when fighting fires involving rubber.

Additional Comments/Information:

No explosion hazard. Product will not self-ignite but will burn if exposed to flame. As with any organic material and depending upon conditions, product may emit Carbon Dioxide and/or Carbon Monoxide.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Sweep up by mechanical means. Brooms are a recommended tool.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

No precautions necessary. However, it is recommended that it is stored in a cool, dry environment in original closed packaging. Individuals handling the material should follow recommendations in Section 8.

Good housekeeping and hygienic practices should be observed. Avoid heat, sparks and/or flames.

Product may cure if exposed to heat. Product may freeze if exposed to cold.

Avoid storage near strong acids and/or oxidizers.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

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Exposure

| CAS No. | Ingredient | Source | Value |
|--------------|--|----------|---|
| 0000137-26-8 | Thioperoxydicarbonic diamide, tetramethyl- | OSHA | TWA 5 mg/m3 |
| | | ACGIH | TWA: 1 mg/m3S Revised 2008; 2010, |
| | | NIOSH | TWA 5 mg/m3 |
| | | Supplier | No Established Limit |
| 0000149-30-4 | Mercaptobenzothiazole | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |
| 0000557-05-1 | Octadecanoic acid, zinc salt | OSHA | TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp) |
| | | ACGIH | TWA: 10 mg/m3STEL: 20 mg/m3 |
| | | NIOSH | TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp) |
| | | Supplier | No Established Limit |
| 0001314-13-2 | Zinc oxide | OSHA | TWA 5 mg/m3 (fume) TWA 15 mg/m3 (total dust) TWA 5 mg/m3 (resp dust) |
| | | ACGIH | TWA: 2 mg/m3STEL: 10 mg/m3 A1, 1, Revised 2003, |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |
| 0001314-98-3 | Zinc Sulfide | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |

Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|--------------|--|--------|---|
| 0000137-26-8 | Thioperoxydicarbonic diamide, tetramethyl- | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No; |
| 0000149-30-4 | Mercaptobenzothiazole | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |

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| | | | |
|--------------|------------------------------|------|--|
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0000557-05-1 | Octadecanoic acid, zinc salt | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0001314-13-2 | Zinc oxide | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0001314-98-3 | Zinc Sulfide | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |

8.2. Exposure controls

Respiratory

None needed

Eyes

Protective safety glasses recommended.

Skin

Wear overalls to keep skin contact to a minimum. None needed unless the handler is sensitive to the finished product. In this case, cloth gloves should be worn.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Observe general safety regulations for rubber processing and compounding. As conditions or methods of use are beyond the control of the Manufacturer. No responsibility is assumed. Liability is expressly disclaimed for any use of this product.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance

Tan Solid, approximately 0.125" thick

Odor

smoky rubber

Odor threshold

Not Measured

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| | |
|--|--|
| pH | NA |
| Melting point / freezing point | NA |
| Initial boiling point and boiling range | NA |
| Flash Point | NA |
| Evaporation rate (Ether = 1) | NA |
| Flammability (solid, gas) | Not Applicable |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: NA Upper Explosive Limit: NA |
| Vapor pressure (Pa) | NA |
| Vapor Density | NA |
| Specific Gravity | Approximately 1.5 |
| Solubility in Water | Insoluble |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |
| Auto-ignition temperature | NA |
| Decomposition temperature | NA |
| Viscosity (cSt) | NA |
| VOC % | NA |
| Water Reactive | No |

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

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TMTD may react with nitrosating agents to form nitrosamines - suspect carcinogens.

- Oxides of COx, NOx and SOx.
- Unburned hydrocarbons, trace oxides, acetic acid, oxides of Zinc, undetermined aliphatic fragments and fumes of components may exist during decomposition.

11. Toxicological information

Acute toxicity

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapor LD50, mg/L/4hr | Inhalation Dust/Mist LD50, mg/L/4hr | Inhalation Gas LD50, ppm |
|---|-----------------------------|-------------------|---------------------------------|-------------------------------------|--------------------------|
| Octadecanoic acid, zinc salt - (557-05-1) | No data available | No data available | No data available | No data available | No data available |
| Zinc oxide - (1314-13-2) | 5,000.00, Rat - Category: 5 | No data available | No data available | 2.50, Mouse - Category: 4 | No data available |
| Zinc Sulfide - (1314-98-3) | No data available | No data available | No data available | No data available | No data available |
| Thioperoxydicarbonic diamide, tetramethyl- - (137-26-8) | No data available | No data available | No data available | No data available | No data available |
| Mercaptobenzothiazole - (149-30-4) | No data available | No data available | No data available | No data available | No data available |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

| Classification | Category | Hazard Description |
|-------------------------------|----------|---|
| Acute toxicity (oral) | --- | Not Applicable |
| Acute toxicity (dermal) | --- | Not Applicable |
| Acute toxicity (inhalation) | --- | Not Applicable |
| Skin corrosion/irritation | 3 | Causes mild skin irritation. (Not adopted by US OSHA) |
| Serious eye damage/irritation | --- | Not Applicable |
| Respiratory sensitization | --- | Not Applicable |
| Skin sensitization | 1 | May cause an allergic skin reaction. |
| Germ cell mutagenicity | --- | Not Applicable |
| Carcinogenicity | --- | Not Applicable |
| Reproductive toxicity | --- | Not Applicable |

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| | | |
|------------------------|-----|----------------|
| STOT-single exposure | --- | Not Applicable |
| STOT-repeated exposure | --- | Not Applicable |
| Aspiration hazard | --- | Not Applicable |

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|---|---------------------------|----------------------------|--|
| Octadecanoic acid, zinc salt - (557-05-1) | Not Available | Not Available | Not Available |
| Zinc oxide - (1314-13-2) | 1.10, Oncorhynchus mykiss | 0.098, Daphnia magna | 0.042 (72 hr), Pseudokirchneriella subcapitata |
| Zinc Sulfide - (1314-98-3) | Not Available | Not Available | Not Available |
| Thioperoxydicarbonic diamide, tetramethyl- - (137-26-8) | Not Available | Not Available | Not Available |
| Mercaptobenzothiazole - (149-30-4) | Not Available | Not Available | Not Available |

12.2. Persistence and degradability

There is no data available on the preparation itself. Easily separable from water by use of filtration.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

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13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|---|--|---|----------------------------------|
| 14.1. UN number | Not Applicable | Not Regulated | Not Regulated |
| 14.2. UN proper shipping name | Not Regulated | Not Regulated | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable DOT Label: --- | IMDG: Not Applicable Sub Class: Not Applicable | Air Class: Not Applicable |
| 14.4. Packing group | Not Applicable | Not Applicable | Not Applicable |

14.5. Environmental hazards

IMDG Marine Pollutant: Yes (Thioperoxydicarbonic diamide, tetramethyl-)

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification D2B

US EPA Tier II Hazards

Fire:No

Sudden Release of Pressure:No

Reactive:No

Immediate (Acute):Yes

Delayed (Chronic):No

EPCRA 311/312 Chemicals and RQs (lbs):

Thioperoxydicarbonic diamide, tetramethyl- (10.00)

EPCRA 302 Extremely Hazardous:

Hydrogen peroxide

EPCRA 313 Toxic Chemicals:

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Octadecanoic acid, zinc salt
Thioperoxydicarbonic diamide, tetramethyl-
Zinc oxide
Zinc Sulfide

Proposition 65 - Carcinogens (>0.0%):

(To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.)

Proposition 65 - Developmental Toxins (>0.0%):

(To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.)

Proposition 65 - Female Repro Toxins (>0.0%):

(To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.)

Proposition 65 - Male Repro Toxins (>0.0%):

(To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.)

N.J. RTK Substances (>1%):

Octadecanoic acid, zinc salt
Thioperoxydicarbonic diamide, tetramethyl-
Zinc oxide

Penn RTK Substances (>1%):

Octadecanoic acid, zinc salt
Thioperoxydicarbonic diamide, tetramethyl-
Zinc oxide

| |
|------------------------------|
| 16. Other information |
|------------------------------|

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

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H410 Very toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

Disclaimer: The information contained herein is considered accurate; however, F .E. Knight, Inc. makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.

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