



Econo-398

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 02/26/2015

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Name: Econo-398

Synonyms: Biocide

Intended Use of the Product

Use of the Substance/Mixture: Biocide. For professional use only.

Name, Address, and Telephone of the Responsible Party

Customer

Economy® Polymers & Chemicals

435 E. Anderson Road

77047 Houston, TX

T 713-723-8416

www.economypolymers.com

Emergency Telephone Number

Emergency number : CHEMTREC 1-800-424-9300 (US); 703-527-3887 (International, collect calls are accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Comb. Dust

Acute Tox. 4 (Oral) H302

Eye Irrit. 2A H319

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Warning

Hazard Statements (GHS-US)

: May form combustible dust concentrations in air

H302 - Harmful if swallowed

H319 - Causes serious eye irritation

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements (GHS-US)

: P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P330 - If swallowed, rinse mouth.

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

P391 - Collect spillage.

P501 - Dispose of contents/container to local, regional, national, territorial, provincial, and international regulations.

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Other Hazards

Other Hazards Not Contributing to the Classification: Decomposes on heating above 102°C, and reacts with acids producing toxic fumes. Reacts with moisture and water producing toxic gases. Exposure may aggravate those with pre existing eye, skin, or respiratory conditions. May release poisonous hydrogen sulfide. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion, keep dust levels to a minimum and follow applicable regulations.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione	(CAS No) 533-74-4	90 - 100	Comb. Dust Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Water	(CAS No) 7732-18-5	1 - 5	Not classified

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation persists

Eye Contact: Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persist. Remove contact lenses, if present and easy to do. Continue rinsing

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell

Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed. Eye irritation

Inhalation: Prolonged contact with large amounts of dust may cause mechanical irritation.

Skin Contact: May cause skin irritation. May cause an allergic reaction in sensitive individuals.

Eye Contact: Causes serious eye irritation

Ingestion: Swallowing a small quantity of this material will result in serious health hazard. May cause nausea, vomiting, and diarrhea.

Chronic Symptoms: Not available

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water, foam, carbon dioxide, dry chemical

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion, keep dust levels to a minimum and follow applicable regulations

Reactivity: Decomposes on heating above 102°C, and reacts with acids producing toxic fumes. Reacts with moisture and water producing toxic gases. Decomposition products may be flammable.

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Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire

Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂), methyl isocyanate. Decomposes on heating above 102°C, and reacts with acids producing toxic fumes. Reacts with moisture and water producing toxic gases. Nitrogen oxides. Sulfur oxides. Formaldehyde. Hydrogen sulfide. Carbon disulfide.

Other information: Do not allow run-off from fire fighting to enter drains or water courses

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow product to spread into the environment. Handle in accordance with good industrial hygiene and safety practice. Avoid all contact with skin, eyes, or clothing. Avoid breathing (dust). Avoid generating dust.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Use appropriate personal protection equipment (PPE).

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment

Methods and Material for Containment and Cleaning Up

For Containment: Use explosion proof vacuum during cleanup, with appropriate filter, do not mix with other materials. Use only non-sparking tools

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Collect spillage. Avoid generation of dust during clean-up of spills. Use explosion proof vacuum during cleanup, with appropriate filter, do not mix with other materials. Contact competent authorities after a spill

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion, keep dust levels to a minimum and follow applicable regulations. Decomposes on heating above 102°C, and reacts with acids producing toxic fumes. Reacts with moisture and water producing toxic gases. Do not pressurize, cut, or weld containers.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely high or low temperatures, direct sunlight, ignition sources, incompatible materials

Incompatible Materials: Strong acids, Strong bases, Strong oxidizers. May react with moisture

Specific End Use(s)

Biocide. For professional use only

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

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Exposure Controls

Appropriate Engineering Controls: Use explosion-proof equipment. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Avoid dust production

Personal Protective Equipment: Protective goggles. Insufficient ventilation: wear respiratory protection. Gloves. Protective clothing.



Materials for Protective Clothing: Chemically resistant materials and fabrics

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of dust are expected to exceed exposure limits.

Thermal Hazard Protection: Wear suitable protective clothing.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Granular powder, White.
Odor	: Mild Sulfide odor
Odor Threshold	: Not available
pH	: 6 - 8
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: unknown
Freezing Point	: Not available
Boiling Point	: 105 °C (221°F)
Flash Point	: > 137.8 °C (>280.04)
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Relative Density	: Not available
Specific Gravity	: 0.75
Solubility	: Slight (In H2O)
Log Pow	: Not available
Log Kow	: Not available
Viscosity, Kinematic	: Not available
Viscosity, Dynamic	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not available
Explosion Data – Sensitivity to Static Discharge	: Not available

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: Decomposes on heating above 102°C, and reacts with acids producing toxic fumes. Reacts with moisture and water producing toxic gases. Decomposition products may be flammable

Chemical Stability: Decomposes on heating above 102°C, and reacts with acids producing toxic fumes. Reacts with moisture and water producing toxic gases.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Methyl isocyanate. Nitrogen oxides. Formaldehyde. Hydrogen sulfide. May release flammable gases. Toxic gases. Irritating fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity : Harmful if swallowed.

LD50 and LC50 Data Not available

Skin Corrosion/Irritation: Not classified pH: 6 - 8

Serious Eye Damage/Irritation: Causes serious eye irritation. pH: 6 - 8

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Potential Adverse Human Health Effects and Symptoms: Harmful if swallowed.

Symptoms/Injuries After Inhalation: Prolonged contact with large amounts of dust may cause mechanical irritation.

Symptoms/Injuries After Skin Contact: May cause skin irritation. May cause an allergic reaction in sensitive individuals.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: Swallowing a small quantity of this material will result in serious health hazard. May cause nausea, vomiting, and diarrhea.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data

Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (533-74-4)	
LD50 Oral Rat	320 mg/kg
LD50 Dermal Rabbit	7 g/kg
LC50 Inhalation Rat (mg/l)	8400 mg/m ³ (Exposure time: 4 h)

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Very toxic to aquatic life with long lasting effects.

Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (533-74-4)	
LC50 Fish 1	10.0 - 22.0 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
EC50 Daphnia 1	0.3 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	1 mg/l (Exposure time: 96 h - Species: Desmodemus subspicatus)
LC 50 Fish 2	12 - 31.7 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	9.5 - 14.8 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])

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Persistence and Degradability

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Persistence and Degradability

May cause long-term adverse effects in the environment.

Bioaccumulative Potential

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Bioaccumulative Potential

Not established.

Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (533-74-4)

BCF fish 1

(no bioaccumulation)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Ecology – Waste Materials: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/DOT/TDG

UN Number

UN-No.(DOT): 3077

DOT NA no.: UN3077

UN Proper Shipping Name

DOT Proper Shipping Name

: Environmentally hazardous substances, solid, n.o.s.
(contains tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione)

Department of Transportation (DOT) Hazard Classes

: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Hazard Labels (DOT)

: 9 - Miscellaneous dangerous compounds



DOT Symbols

: G - Identifies PSN requiring a technical name

Packing Group (DOT)

: III - Minor Danger

DOT Special Provisions (49 CFR 172.102)

: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.

146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.

335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s." UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.

A112 - Notwithstanding the quantity limits shown in Column (9A) and (9B) for this entry, the following IBCs are authorized for transportation aboard

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passenger and cargo-only aircraft. Each IBC may not exceed a maximum net quantity of 1,000 kg:

- a. Metal: 11A, 11B, 11N, 21A, 21B and 21N
- b. Rigid plastics: 11H1, 11H2, 21H1 and 21H2
- c. Composite with plastic inner receptacle: 11HZ1, 11HZ2, 21HZ1 and 21HZ2
- d. Fiberboard: 11G
- e. Wooden: 11C, 11D and 11F (with inner liners)
- f. Flexible: 13H2, 13H3, 13H4, 13H5, 13L2, 13L3, 13L4, 13M1 and 13M2 (flexible IBCs must be sift-proof and water resistant or must be fitted with a sift-proof and water resistant liner).

B54 - Open-top, sift-proof rail cars are also authorized.

IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).

IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner.

N20 - A 5M1 multi-wall paper bag is authorized if transported in a closed transport vehicle.

T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2)

TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240

Additional Information

Emergency Response Guide (ERG) Number	: 171
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Transport by sea

DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
MFAG-No	: 171

Air transport

DOT Quantity Limitations Passenger Aircraft/Rail (49 CFR 173.27)	: No limit
DOT Quantity Limitations Cargo Aircraft Only (49 CFR 175.75)	: No limit

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (533-74-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	1.0 %

US State Regulations

Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (533-74-4)
U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities U.S. - Massachusetts - Toxics Use Reduction Act U.S. - Michigan - Polluting Materials List U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances U.S. - New Jersey - Environmental Hazardous Substances List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Texas - Effects Screening Levels - Long Term U.S. - Texas - Effects Screening Levels - Short Term U.S. - Vermont - Hazardous Waste - Hazardous Constituents U.S. - Washington - Dangerous Waste - Dangerous Waste Constituents List

Canadian Regulations

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WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects
	
Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (533-74-4)	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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

SECTION 16: OTHER INFORMATION

Indication of Changes : Revision date 02/26/2015
Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
H302	Harmful if swallowed
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Party Responsible for the Preparation of This Document

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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

North America GHS US 2012 & WHMIS