FUEL POWER MARKETING

H.U.M. OUT

SAFETY DATA SHEET

Section 1. Identification

GHS Product Identifier : H.U.M. Out
Other Means of Identification: Biocide

Product Type : Liquid

Relevant identified uses of the substance or mixture and uses advised against:
See Label and/or Technical Data Sheet, if available.

Supplier's Details:

Fuel Power Marketing, P.O. Box 7371, San Diego, CA 92167 Phone # 619-223-0351
Emergency Telephone Number 1-800-424-9300
(with hours of operation) 24 Hour Emergency Number

Section 2. Hazards Identification

OSHA/HCS: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) **CLASSIFICATION**

Flammable Liquids	Category 4
Acute Toxicity (Inhalation)	Category 2
Skin Corrosion/Irritation	Category 1
Serious Eye Damage/Eye Irritation	Category 1
Skin Sensitization	Category 1

Percentage of the Mixture Consisting of Ingredient(s) of Unknown Toxicity: 3% **GHS Label Elements:**

DANGER
Hazard Statements

Combustible Liquid	Causes Severe Skin Burns and Eye Damage
Fatal If Inhaled	May Cause An Allergic Reaction

Precautionary Statements:

General : Read Label before use. Keep out of Reach of Children. If Medical advice is needed have product container or label at hand.

Prevention: Wear protective gloves. Wear eye or face protection. Wear respiratory protection. Keep away from flames and hot surfaces,-NO Smoking. Use only outdoors or in a well ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

H.U.M. OUT

Section 14. Transport information

Additional information	**Remarks** ERG Guide 154	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Emergency schedules (EmS)** F-A, S-B **IMDG Code Segregation group** 6 - Cyanides **Remarks** ERG Guide 154, HazMat Code 4936015	The environmentally hazardous substance mark may appear if required by other transportation regulations. **Remarks** ERG Guide 154, ERG Code 8P

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

Potential impurities present in trace quantities are included in the regulatory listings of this section.

U.S. Federal regulations : **United States inventory (TSCA 8b)**:This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from US Toxic Substances Control Act (TSCA) Inventory listing requirements.

Clean Water Act (CWA) 307: dimethylnitrosoamine; naphthalene

Clean Water Act (CWA) 311: naphthalene

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
N-nitrosodimethylamine	0.000000013272	Yes.	1000	118.7	10	1.2

SARA 304 RQ : 75344073781.7 lbs / 34206209496.9 kg [8773130634.9 gal / 33209912132.9 L]

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Methylene bis(thiocyanate) 2-(Thiocyanomethylthio)benzothiazole	2.45 2.3133	No. No.	No. No.	No. No.	Yes. Yes.	Yes. Yes.

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	Diethylene glycol monomethyl ether	111-77-3	>86.522
Supplier notification	Diethylene glycol monomethyl ether	111-77-3	>86.522

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

CERCLA : CERCLA: Hazardous substances.: 2-ethoxyethanol; naphthalene; dimethylnitrosoamine: 10 lbs. (4.54 kg);

FDA : This product is allowed under the following FDA (21 CFR) sections :176.300.

EPA Reg. No. : 1448-171-55737

FIFRA : This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

DANGER. Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed or inhaled. Do not breathe vapor or spray mist. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear goggles or face shield. Wear coveralls over long-sleeved shirt and long pants; socks and chemical resistant footwear; chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride or viton; and respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C); or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G); or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter. In addition to the PPE listed above, mixers, loaders, and cleaners of equipment must also wear chemical-resistant apron. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

User Safety Requirements: Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendation: User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS: This product is toxic to fish, aquatic invertebrates, oysters and shrimp. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL AND CHEMICAL HAZARDS: Do not expose to extreme temperatures.

State regulations

California Prop. 65

Section 15. Regulatory information

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.
WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive
2-methoxyethanol	No.	Yes.
2-ethoxyethanol	No.	Yes.
naphthalene	Yes.	No.
dimethylnitrosoamine	Yes.	No.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Buckman Laboratories, Inc. warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use outside of such directions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty.
The exclusive remedy against seller shall be in a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort.

Any controversy or claim arising out or relating to this contract, or breach thereof, shall be settle by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgment upon the rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

Section 2. Hazards identification

Response : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Biocides

Product code : MECT5

Ingredient name	%	CAS number
Methylene bis(thiocyanate) 2-(Thiocyanomethylthio)benzothiazole	2.45 2.3133	6317-18-6 21564-17-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

While some substances are claimed as trade secret in accordance with the provision of OSHA 29 CFR 1910.1200(i), all known hazards are clearly communicated within this document.

Per Appendix D 1919.1200 OSHA, ranges can be used when there is batch-to-batch variability in a mixture or a trade secret claim.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact :
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for further treatment advice.

Inhalation :
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

Skin contact :
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

Ingestion :
- Immediately call for a poison control center or doctor.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give any liquid to the person.
- Do not give anything by mouth to an unconscious person.

Notes to physician : Probable mucosal damage may contraindicate the use of gastric lavage. This product may pose an aspiration pneumonia hazard. Contains Petroleum distillate.

Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Satisfactory Materials of Construction : 304 Stainless steel
316 Stainless steel
Aluminum 5052 H34
Polyethylene - crosslink
Polyethylene - high density
Polyethylene - low density
Polypropylene
Rehau Tubing
Neoprene
Silicone rubber
6/6 Nylon
Teflon
Pharmed Tubing
FRP
Norprene
Dow Sillastic Tube
NOTE: With respect to all other materials not listed above, user should be aware that use of such materials with this product may be hazardous and result in damages to such materials and other property and personal injuries. No data concerning such materials not listed above should be implied by the user.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Clear amber

Odor : Slight [Slight]

Odor threshold : Not available.

pH : Not available.

Section 9. Physical and chemical properties

Melting point	:	<-30°C (<-22°F)
Boiling point	:	>100°C (>212°F)
Flash point	:	Closed cup: 70°C (158°F) [Tagliabue.]
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Relative density	:	1.03
Dispersibility properties	:	Dispersible in the following materials: cold water and hot water.
Solubility	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not available.
Decomposition temperature	:	Not available.
Viscosity	:	Not available.
VOC	:	Not available.

Section 10. Stability and reactivity

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Contains 2-(thiocyanomethylthio)benzothiazole. Contains methylene bis(thiocyanate). Do not heat and/or store above 50°C as decomposition may increase packaging pressure.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	:	Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Methylene bis(thiocyanate)	LC50 Inhalation Dusts and mists	Rat	7.7 mg/m³	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	55 mg/kg	-
	LD50 Oral	Rat	81.4 mg/kg	-
2-(Thiocyanomethylthio) benzothiazole	LC50 Inhalation Dusts and mists	Rat	0.067 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Mouse	445 mg/kg	-
	LD50 Oral	Rat	750 mg/kg	-

Conclusion/Summary : This product contains 2.5% of each active ingredient, TCMTB and MTC. The following data was developed from tests conducted with a formulation containing 10% of each of the active ingredients. Additional information is available in the Toxicity Profiles of the individual actives.

- Oral : LD_{50}/Rat = 250 mg/kg
- Dermal : LD_{50}/Rabbitt = 1670 mg/kg
- Dermal Sensitization: Guinea Pig: Strong Sensitizer
- Skin Irritation: Rabbits: Severely irritating, corrosive
- Eye Irritation: Rabbits: Corrosive

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Methylene bis(thiocyanate)	Skin - Mild irritant	Rabbit	-	-	-
	Eyes - Severe irritant	Rabbit	-	-	-
2-(Thiocyanomethylthio) benzothiazole	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Skin - Primary dermal irritation index (PDII)	Rabbit	7.4	-	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Methylene bis(thiocyanate)	skin	Guinea pig	Sensitizing
2-(Thiocyanomethylthio) benzothiazole	skin	Guinea pig	Sensitizing

Mutagenicity

Not available.

Carcinogenicity

This product has not been tested unless noted in summary results.

Conclusion/Summary : Mutagenicity testing and 52-week rat studies on the active ingredients show no evidence of carcinogenic effects.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Dermal, Inhalation.
Routes of entry not anticipated: Oral.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Fatal if inhaled.

Skin contact : Causes severe burns. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Chronic feeding studies on the active ingredient did not reveal any significant adverse effects.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Section 11. Toxicological information

Acute toxicity estimates

Route	ATE value
Oral Inhalation (dusts and mists)	2162.5 mg/kg 0.2986 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
MECT 5	Acute LC50 0.011 mg/l Acute LC50 0.23 mg/l	Daphnia Fish	48 hours 96 hours

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	2922	2922	2922
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (2-(Thiocyanomethylthio) benzothiazole, Methylene bis (thiocyanate))	CORROSIVE LIQUID, TOXIC, N.O.S. (2-(Thiocyanomethylthio) benzothiazole, Methylene bis (thiocyanate)). Marine pollutant (2-(Thiocyanomethylthio) benzothiazole)	CORROSIVE LIQUID, TOXIC, N.O.S. (2-(Thiocyanomethylthio) benzothiazole, Methylene bis (thiocyanate))
Transport hazard class(es)	8 (6.1)	8 (6.1)	8 (6.1)
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.