

SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Trade name : CWT-35
 Product form : Mixture

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

Use of the substance/mixture : Water treatment chemical

1.3. Details of the supplier of the safety data sheet

Kriss Premium Products, Inc.
 3400 East 42nd Street
 Minneapolis, MN 55406

1.4. Emergency telephone number

Emergency number : INFORMATION: 612-722-8485
 CHEMTREC: (800) 424-9300

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification (GHS-US)

Skin sensitization : Category 1
 Carcinogenicity : Category 1B
 Reproductive toxicity : Category 1B
 Acute aquatic toxicity : Category 2
 Chronic aquatic toxicity : Category 2

2.2. Label elements
GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

GHS08

GHS09

Signal word (GHS-US) : **Danger**

Hazard statements (GHS-US) : H317 – May cause an allergic skin reaction.
 H350 - May cause cancer
 H360 – may damage fertility or the unborn child
 H411 – Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) : **Prevention**
 P201 – Obtain special instructions before use.
 P202 - Do not handle until all safety precautions have been read and understood
 P261 – Avoid breathing mist, vapours or spray.
 P272 – Contaminated work clothing should not be allowed out of the workplace.
 P273 – Avoid release to the environment.
 P280 - Wear eye protection, face protection, protective clothing, protective gloves
 P281 – Use personal protective equipment as required.
Response
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P333+P313 – IF skin irritation or rash occurs: Get medical advice/attention.
 P363 - Wash contaminated clothing before reuse
 P391 – Collect spillage.

Storage

P405 - Store locked up

Disposal

P501 - Dispose of contents/container in accordance with local regulation.

2.3. Potential health effects

Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Skin : May cause an allergic skin reaction.

CWT-35

Safety Data Sheet

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

Eyes : Not expected to be irritating.
Ingestion : Not expected to be irritating.
Aggravated Medical Condition : None known.
Symptoms of Overexposure : No information available.

2.4. Carcinogenicity

IARC : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP : Reasonably anticipated to be a human carcinogen Imidazolidine-2-thione 96-45-7
ACGIH : No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	Classification	%
Nabam	142-59-6	Acute Toxicity 4; H302 Skin Sensitivity 1; H317 STOT SE 3; H335 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute): 1	1 - 5
Imidazolidine-2-thione	96-45-7	Acute Toxicity 4; H302 Carc. 2; H351 Repr. 1B; H360 STOT RE 1; H372	0.1 - 1

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general advice : Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.
First-aid measures after inhalation : IF BREATHED IN: move person into fresh air. Consult a physician after significant exposure.
First-aid measures after skin contact : IF ON SKIN: Take off contaminated clothing and shoes immediately. Rinse immediately with plenty of water. If skin irritation persists, call a physician.
First-aid measures after eye contact : IF IN EYES: Rinse with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
First-aid measures after ingestion : IF SWALLOWED: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

4.2. Notes to physician

Symptoms : No information available.
Risks : No information available.
Treatment : No information available.

SECTION 5: Firefighting measures

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards during fire fighting / Specific hazards arising from the chemical : Do not allow run-off from fire fighting to enter drains or water courses.
Combustion products : Carbon oxides, Sulfur oxides, Sulfur compounds.
Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

See also Section 9. Physical and chemical properties: Safety data

CWT-35

Safety Data Sheet

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

SECTION 6: Accidental release measures

6.1. Personal precautions

Use personal protective equipment. Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods for cleaning up / Methods for containment

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13). Keep in suitable, closed containers for disposal.

6.4. Additional advice

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Handling

Advice on safe handling : For personal protection see section 8.
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Obtain special instructions before use.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

7.2. Storage

Requirements for storage areas and containers : Prevent unauthorized access.
Keep container tightly closed in a dry and well-ventilated place.
Reacts with copper, aluminum, zinc and their alloys.

Minimum storage temperature : Avoid temperatures below 5 °C (41 °F)

Maximum storage temperature : 40 °C (104 °F)

Other data : Do not freeze. Do not store near acids

SECTION 8: Exposure controls/personal protection

8.1. Exposure Guidelines

Contains no substances with occupational exposure limit values.

Occupational exposure limits of decomposition products

Decomposition products	CAS No.	Value	Control parameters	Update	Basis	Form of exposure
Sulphur dioxide	7446-09-5, 7746-09-5	STEL	0.25 ppm	2009-01-01	ACGIH	
	Further Information	:	Pulmonary function Lower Respiratory Tract Irritation A4: Not classifiable as a human carcinogen			
		TWA	2 ppm 5 mg/m ³	2005-09-01	NIOSH REL	
		STEL	5 ppm 13 mg/m ³	2005-09-01	NIOSH REL	
		TWA	5 ppm 13 mg/m ³	1997-08-04	OSHA Z-1	
	Further Information	:	(B): The value in mg/m ³ is approximate.			
		TWA	2 ppm 5 mg/m ³	1989-01-19	OSHA P0	
		STEL	5 ppm 13 mg/m ³	1989-01-19	OSHA P0	
Hydrogen sulphide	7783-06-4, 7783-06-4	TWA	1 ppm	2013-03-01	ACGIH	
	Further Information	:	Central Nervous System impairment Upper Respiratory Tract irritation			
		STEL	5 ppm	2013-03-01	ACGIH	
	Further Information	:	Central Nervous System impairment Upper Respiratory Tract irritation			
		C	10 ppm 15 mg/m ³	2005-09-01	NIOSH REL	
	Further Information	:	10 minute ceiling value.			
		CEL	20 ppm	2007-01-01	OSHA Z-2	
	Further Information	:	Z37.2-1966			

CWT-35

Safety Data Sheet

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

		Peak	50 ppm	2007-01-01	OSHA Z-2	
	Further Information	:	Z37.2-1966			
		TWA	10 ppm 14 mg/m ³	1989-01-19	OSHAP0	
		STEL	15 ppm 21 mg/m ³	1989-01-19	OSHAP0	
	Further Information	:	(2): See Table Z-2			
Carbon disulphide	75-15-0, 75-15-0	TWA	1 ppm	2008-01-01	ACGIH	
	Further Information	:	Peripheral Central Nervous System impairment BEI: Substances for which there is a biological Exposure Index or Indices (see BEI® section) A4: Not classifiable as a human carcinogen Skin: Danger of cutaneous absorption.			
		TWA	1 ppm 3 mg/m ³	2005-09-01	NIOSH REL	
	Further Information	:	skin: Potential for dermal absorption			
		ST	10 ppm 30 mg/m ³	2005-09-01	NIOSH REL	
	Further Information	:	skin: Potential for dermal absorption			
		TWA	20 ppm	2007-01-01	OSHA Z-2	
	Further Information	:	Z37.3-1968			
		CEIL	30 ppm	2007-01-01	OSHA Z-2	
	Further Information	:	Z37.3-1968			
		Peak	100 ppm	2007-01-01	OSHA Z-2	
	Further Information	:	Z37.3-1968			
		TWA	4 ppm 12 mg/m ³	1989-01-19	OSHAP0	
	Further Information	:	X: Skin notation			
		STEL	12 ppm 36 mg/m ³	1989-01-19	OSHAP0	
	Further Information	:	X: Skin notation			
	Further Information	:	(2): See Table Z-2			

8.2. Exposure controls

Engineering measures

: Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

: Gloves. Protective goggles. Face shield. Protective clothing. Respiratory protection of the dependent type.



Hand protection

: Glove material: Neoprene or Nitrile rubber

Eye/face protection

: Tightly fitting safety goggles

Skin and body protection

: Protective suit

Respiratory protection

: In the case of vapor or aerosol formation use a respirator with an approved filter.

Wear full face mask supplied with: Combination filter ABEKP

Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice.

When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

Wash contaminated clothing before re-use.

8.3. Environmental exposure controls

General advice

: Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

CWT-35

Safety Data Sheet

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Form	: Liquid
Color	: Yellow green
Odor	: Sulfurous
Odor Threshold	: No data available

Safety data

pH	: 11 at 100% solution
Melting point/freezing point	: 0°C
Boiling point/boiling range	: > 100 °C
Flash point	: > 94 °C, Method: closed cup
Evaporation rate	: 1
Decomposition temperature	: Heating can release hazardous gases.
Flammability (solid, gas)	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapor pressure	: < 23 hPa at 20°C
Relative vapor density	: > 1 (Air = 1.0)
Relative density	: No data available
Water solubility	: Soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Explosive properties	: Not explosive
Oxidizing properties	: The substance or mixture is not classified as oxidizing.

The material safety data sheet only contains information relating to safety and does not replace any product information or product specification.

SECTION 10: Stability and reactivity

10.1. Conditions to avoid

Extremes of temperature and direct sunlight. For safety, store below: 40°C (104°F)

10.2. Materials to avoid

Reacts with copper, aluminum, zinc and their alloys. Oxidizing agents. Acids.

10.3. Hazardous decomposition products

Sulphur dioxide, Hydrogen sulphide, Carbon disulphide

10.4. Thermal decomposition

Heating can release hazardous gases.

10.5. Reactivity

Stable under normal conditions.

10.6. Chemical stability

Stable under recommended storage conditions.

10.7. Hazardous reactions

No dangerous reaction known under conditions of normal use.

SECTION 11: Toxicological information

11.1. Product Information

Toxicology Assessment

Further Information	: May damage fertility or the unborn child. Suspected of causing cancer.
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Test Result

CWT-35

Safety Data Sheet

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

Acute oral toxicity	: Acute toxic estimate: > 5,000 mg/kg Method: Calculation method
Carcinogenicity	:
IARC	: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.
OSHA	: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	: Reasonably anticipated to be a human carcinogen Imidazolidine-2-thione 96-45-7
ACGIH	: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Toxicology Data for the Ingredients	:
Toxicology Assessment	:
<u>Component: Imidazolidine-2-thione</u>	:
CMR effects	: Carcinogenicity: Suspected human carcinogens Reproductive toxicity: Presumed human reproductive toxicant May damage the unborn child
Test Result	:
<u>Component: Nabam</u>	:
Acute oral toxicity	: LD50: > 300 – 2,000 mg/kg, Species: rat
Sensitization	: Result: May cause sensitization by skin contact.
Target Organ Systemic	: May cause respiratory irritation.
Toxicant – Single exposure	:

SECTION 12: Ecological information

12.1. Product Information

Ecotoxicology Assessment

Additional ecological information	: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
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Further information on ecology

Hazardous to the ozone layer

Regulation	: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone – CAA Section 602 Class I Substances
Remarks	: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A+B).

Ingredients: Test Result

Component: Nabam

Ecotoxicity effects

Toxicity to fish	: LC50: >0.1 – 1 mg/l, Exposure time: 96h Species: Cyprinodon variegatus (sheepshead minnow)
Toxicity to daphnia and other aquatic invertebrates	: EC50: 0.14 – 5.60 mg/l, Exposure time: 48h Species: Daphnia magna (water flea)
M-Factor	: 1

Elimination information

(persistence and degradability)

Bioaccumulation	: No data available
Mobility	: No data available
Biodegradability	: Result: Not readily biodegradable.

Further information on ecology

Biochemical Oxygen Demand (BOD)	: No data available
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CWT-35

Safety Data Sheet

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

Component: Imidazolidine-2-thione

Ecotoxicity effects

Toxicity to fish : LC50: 7,500 mg/l, Exposure time: 96h
Species: Poecilia reticulata (guppy)
Literature data.

Elimination information

(persistence and degradability)

Bioaccumulation : Bioaccumulation is unlikely.
Mobility : No data available
Biodegradability : Result: Not readily biodegradable. Literature data.

Further information on ecology

Biochemical Oxygen Demand (BOD) : No data available

SECTION 13: Disposal considerations

13.1. Product

: The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Hazardous waste.
Dispose of contents/container in accordance with local regulation.
Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Contaminated packaging : Empty remaining contents.
Dispose of as unused product.

SECTION 14: Transport information

14.1. International regulation

IATA-DGR

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(Sodium dimethyldithiocarbamate, Nabam)
Class : 9
Packing group : III
Labels : 9
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Packing instruction (LQ) : Y964
Environmentally hazardous : Yes

IMDG-Code

UN number : Heating can release hazardous gases.
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Sodium dimethyldithiocarbamate, Nabam)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : Yes (Sodium dimethyldithiocarbamate, Nabam)

CWT-35

Safety Data Sheet

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

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

Not applicable for product as supplied

14.2. Domestic Regulation

49 CFR

UN/ID/NA No. :: ~~UN3382~~

Proper shipping name :: ~~Environmentally hazardous substance, liquid, moss.~~
(Sodium dimethyldithiocarbamate, Nabam)

Class :: 99

Packing group :: III

Labels :: 99

ERG Code :: ~~964~~

Marine pollutant :: 964s (Sodium dimethyldithiocarbamate, Nabam)

Reportable quantity :: 964s product contains the following substance(s) which are environmentally hazardous per 49 CFR 172.101, Appendix A: ()
: Yes

SECTION 15: Regulatory information

Notification status

CH INV : YES. The mixture contains substances listed on the Swiss Inventory

TSCA : YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

DSL : YES. All components of this product are on the Canadian DSL.

AOCS : YES. On the inventory, or in compliance with the inventory.

NZIoC : YES. On the inventory, or in compliance with the inventory.

ENCS : YES. On the inventory, or in compliance with the inventory.

ISHL : YES. On the inventory, or in compliance with the inventory.

KECI : YES. On the inventory, or in compliance with the inventory.

PICCS : YES. On the inventory, or in compliance with the inventory.

IECSC : YES. On the inventory, or in compliance with the inventory.

For explanation of abbreviations, see section 16.

Further Information

This product is subject to regulation under the US Federal Fungicide, Insecticide and Rodenticide Act (FIFRA) and is therefore exempted under the US Toxic Substances Control Act (TSCA) Inventory requirements.

All industrial workers applying this product must wear coveralls over long-sleeved shirt and long pants, shoes, socks and chemical resistant gloves. During dilution a chemical resistant apron and goggles or face shield must also be worn. For additional information on approved uses reference the label.

OSHA Hazards : Carcinogen, Toxic by ingestion, Moderate respiratory irritant.

EPCRA – Emergency Planning and Community Right-to-Know

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

Sara 211/312 Hazards : Chronic Health Hazard
Acute Health Hazard

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

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Sodium dimethyldithiocarbamate	128-04-1
Nabam	142-59-6
Imidazolidine-2-thione	96-45-7

CWT-35

Safety Data Sheet

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

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40CFR61) :

Imidazolidine-2-thione	96-45-7
Carbon disulphide	75-15-0

The following chemical(s) are listed under the U.S. Clean Air Act Section 112® for Accidental Release Prevention (40 CFR 68.130, Subpart F) :

Ethylenediamine	107-15-3
Carbon disulphide	75-15-0
Dimethylamine	124-40-3

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489)

Ethylenediamine	107-15-3
Carbon disulphide	75-15-0
Dimethylamine	124-40-3

Clean Water Act

The following Hazardous Substances are listed under the U.S. Clean Water Act Section 311, Table 116.4A :

Sodium Hydroxide	1310-73-2
Ethylenediamine	107-15-3
Carbon disulphide	75-15-0
Dimethylamine	124-40-3

The following Hazardous Chemicals are listed under the U.S. Clean Water Act Section 311, Table 117.3:

Sodium Hydroxide	1310-73-2
Ethylenediamine	107-15-3
Carbon disulphide	75-15-0
Dimethylamine	124-40-3

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307.

California Prop. 65

WARNING ! This product contains a chemical known in the State of California to cause cancer.

Imidazolidine-2-thione	96-45-7
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WARNING : This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Sodium dimethyldithiocarbamate	128-04-1
Nabam	142-59-6
Imidazolidine-2-thione	96-45-7
Carbon disulphide	75-15-0

SECTION 16: Other information

Full text of H-Statements

H302	: Harmful if swallowed.
H317	: May cause an allergic skin reaction.
H335	: May cause respiratory irritation.
H351	: Suspected of causing cancer
H360	: May damage fertility or the unborn child.
H372	: Causes damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

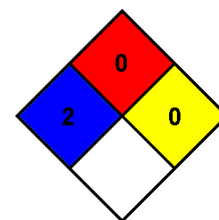
CWT-35

Safety Data Sheet

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

Further Information

NFPA health hazard	: 2 - Material that on intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.
NFPA fire hazard	: 0 - Materials that will not burn.
NFPA reactivity	: 0 - Material that in itself is normally stable, even under fire exposure conditions, and is not reactive with water.



HMIS III Rating

Health	: 2
Flammability	: 0
Physical	: 0
Personal Protection	:

Notification status explanation

REACH	1907/2006 (EU)
CH INV	Switzerland. New notified substances and declared preparations.
TSCA	United States TSCA Inventory
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS-Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL-Inventory of Chemical Substances (METI)
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)

We believe that the information contained on this Material Safety Data Sheet is accurate. The suggested procedures are based on experience as of the date of publication. They are not necessarily adequate in every circumstance. These suggestions should not be confused with or followed in violation of applicable laws, regulations, rules or insurance requirements. The seller makes no warranty expressed or implied concerning the accuracy or any results obtained from the use of any information and no warranty expressed or implied concerning the use of the products. The buyer assumes all risks of the use and/or handling.