



FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL: 1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: TRIADINE® 20 INDUSTRIAL MICROBIOSTAT

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Arch Chemicals, Inc. 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	06/18/2015
	SUPERCEDES:	06/24/2010
	MSDS Number:	000000021051
	SYNONYMS:	None
	CHEMICAL FAMILY:	Mixture
	DESCRIPTION / USE	Industrial biocide
	FORMULA:	None established

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Acute toxicity (Inhalation) : Category 3
Serious eye damage : Category 1
Specific target organ toxicity - repeated exposure : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H302 Harmful if swallowed.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.



Precautionary statements

- : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear eye protection/ face protection.
- Response:**
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 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 doctor/ physician.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
- Storage:**
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
- Disposal:**
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
1,3,5-TRIAZINE-1,3,5(2H,4H,6H)- TRIETHANOL	4719-04-4	68 - 75
Sodium Pyrithione	3811-73-2	1 - 5
Water	7732-18-5	20 - 28



SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: 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.
Eye Contact:	IF IN EYES: 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 treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive.
<u>Flammable Properties</u>	
Flash Point:	Not applicable
Autoignition Temperature:	No data.
Fire / Explosion Hazards:	Material will not ignite or burn. This material is not expected to burn unless all the water is boiled away. The remaining compounds may be ignitable.
Extinguishing Media:	Not Applicable. - Choose extinguishing media suitable for surrounding materials.
Fire Fighting Instructions:	In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus. Use water to cool containers.
Hazardous Combustion Products:	Oxides of nitrogen
Upper Flammable / Explosive Limit, % in air:	Not Applicable/Mixture
Lower Flammable / Explosive Limit, % in air:	Not Applicable/Mixture

SECTION 6. ACCIDENTAL RELEASE MEASURES



Personal Protection for Emergency Situations: Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release: Vapors may be suppressed by the use of water fog. Contain all liquid for treatment or neutralization.

Water Release: This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so. Continue to handle as described in land spill.

Land Release: Create a dike or trench to contain materials. Absorb spill with inert material (e.g., dry sand, clay, earth or commercial absorbent), then place in a chemical waste container. Contain all liquids for treatment or disposal.

Additional Spill Information : Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

SECTION 7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing vapor or mist. Keep container closed. Avoid breathing mist or vapor.

Storage: Store in a cool, dry place. Isolate from incompatible materials. Avoid direct exposure to sunlight or ultraviolet (UV) light sources. Store in a cool, dry place. Isolate from incompatible materials. Do not expose to direct light.

Shelf Life Limitations: One year minimum if stored in the original container in a cool, dry place.

Incompatible Materials for Storage: concentrated acids, Strong oxidizing agents Refer to Section 10, "Incompatible Materials."

Do Not Store At temperatures Above: 50 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if any exposure occurs.
Respirator Type : A NIOSH approved full-face air purifying respirator equipped with a



combination organic vapor/formaldehyde/P100 filter cartridge. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Skin Protection : Wear impervious gloves to avoid skin contact.
 Eye Protection: Use chemical goggles.
 Protective Clothing Type: Impervious
 General Protective Measures: Emergency eyewash should be provided in the immediate work area.

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
Sodium Pyrithione (3811-73-2)	TWA	0.35 mg/m3	ARCH OEL*

ARCH OEL: Arch Recommended Occupational Exposure Guideline.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
 Form: liquid
 Color: amber, clear
 Odor: mild, Amine
 Molecular Weight: Not Applicable/Mixture
 pH : 9.5 - 11.0
 Boiling Point: 216 °F (102 °C)
 No data

Density: 9.75lb/gal
 (@ 25 Deg. C)
 Vapor Pressure: 10.9 mmHg (@ 25 Deg. C)
 Vapor Density: No data
 Viscosity: No data
 Fat Solubility: No data
 Solubility in Water: complete; 100%
 Partition coefficient n-octanol/water: No data
 Evaporation Rate: LONZA-Z09.00400000 1.00 LONZA-S10000000007801
 Oxidizing: No data
 Volatiles, % by vol.: 25%
 VOC Content Not applicable
 HAP Content Not applicable

SECTION 10. STABILITY AND REACTIVITY



Stability and Reactivity Summary: Stable under normal conditions. This product may become unstable at elevated temperatures after the removal of water. Not sensitive to mechanical shock. Not sensitive to static discharge. Decomposes slowly. Product will not undergo hazardous polymerization.

Conditions to Avoid: Avoid direct exposure to sunlight or ultraviolet (UV) light sources., High temperatures

Chemical Incompatibility: Strong oxidizing agents, concentrated acids

Hazardous Decomposition Products: Formaldehyde, Carbon monoxide, Carbon dioxide, Oxides of nitrogen

Decomposition Temperature: No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-
TRIETHANOL LD50 = 763 mg/kg Rat

Sodium Pyriethione LD50 = 750 mg/kg Rat

Component Animal Toxicology

Dermal LD50 value:

1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-
TRIETHANOL LD50 > 2,000 mg/kg Rabbit

Sodium Pyriethione LD50 = 700 mg/kg Rabbit

Component Animal Toxicology

Inhalation LC50 value:

1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-
TRIETHANOL No data

Sodium Pyriethione Inhalation LC50 4 h = 1.1 mg/l Rat

Product Animal Toxicity

Oral LD50 value: LD50 800 mg/kg Rat

Dermal LD50 value: LD50 > 2,000 mg/kg Rabbit

Inhalation LC50 value: LC50 4 h (Nose Only), (aerosol) = 0.87 mg/l Rat LC50 1 h (Nose Only), (aerosol) = 3.5 mg/l Rat

Skin Irritation: This material is expected to be slightly irritating.

Eye Irritation: Corrosive to eyes.

Skin Sensitization: Negative skin sensitizer, guinea pig - Buehler Method

Acute Toxicity: Moderately toxic if swallowed. Moderately toxic by inhalation. Corrosive to the eyes



Subchronic / Chronic Toxicity: and mildly irritating to the skin. Moderate respiratory irritant
Prolonged or repeated exposure may cause more severe irritation.

Reproductive and Developmental Toxicity: This material has been tested in laboratory animals and no evidence of teratogenicity or embryotoxicity was seen.

Sodium Pyrithione This chemical is not considered to be a reproductive or developmental hazard. However, this material when tested in laboratory animals at maternally toxic doses only was found to cause developmental and/or reproductive toxicity.

Mutagenicity: Not known or reported to be mutagenic. A similarly structured compound was tested and was found to be non-mutagenic in a battery of mutagenicity/genotoxicity assays.

1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-
TRIETHANOL This product has been shown to be non-mutagenic based on a battery of assays.

Sodium Pyrithione This product has been shown to be non-mutagenic based on a battery of assays.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-
TRIETHANOL This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

Sodium Pyrithione Sodium Omadine was administered orally and dermally to laboratory animals and was found not to induce tumor formation as compared to control animals.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Slightly toxic to fish and other aquatic organisms., Aquatic toxicity data presented is for a structurally similar compound.

Ecological Toxicity Values - Product:

Bluegill	-	(nominal, static). 96.0 h LC50	77 mg/l
Rainbow trout (<i>Salmo gairdneri</i>),	-	(nominal, static). 96.0 h LC50	42 mg/l
Channel Catfish (<i>Ictalurus punctatus rafinesque</i>),	-	(nominal, static). 96.0 h LC50	36 mg/l
Daphnia magna,	-	(nominal, static). 48.0 h LC50	5.4 mg/l

Ecological Toxicity Values for: 1,3,5-TRIAZINE-1,3,5(2H,4H,6H)-TRIETHANOL

Rainbow trout (<i>Salmo gairdneri</i>),	-	(measured, flow-through) 96.0 h LC50	> 119 mg/l
Sheepshead minnow	-	(measured, flow-through) 96 h LC50	> 118 mg/l
Daphnia magna,	-	48 h LC50=	26.1 mg/l
Mysid shrimp	-	(measured, flow-through) 96 h LC50=	12 mg/l
Northern bobwhite quail	-	Dietary LC50	> 5,620 ppm



Northern bobwhite quail - acute oral LD50 = 1,520 mg/kg

Ecological Toxicity Values for: Sodium Pyrithione

Rainbow trout (*Salmo gairdneri*), - (measured, static) 96 h LC50 = 0.0066 - 0.008 mg/l (40% aqueous Sodium Omadine)
Bluegill - (measured, static) 96 h LC50 = 7.6 - 9.6 mg/l (40% aqueous Sodium Omadine)
Daphnia magna, - (nominal, static). 48 h LC50= 0.022 mg/l (40% aqueous Sodium Omadine)
Bobwhite quail - acute oral LD50 = 441 mg/kg (40% aqueous Sodium Omadine)
Bobwhite quail - 8 d dietary LC50 = 3,075 ppm (40% aqueous Sodium Omadine)
Mallard duck - 8 d dietary LC50 = 10,033 ppm (40% aqueous Sodium Omadine)
Bobwhite quail - acute oral LD50 = 200 mg/kg (94.9% aqueous Sodium Omadine)
Mallard duck - acute oral LD50 = 92 mg/kg (94.9% aqueous Sodium Omadine)

SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary : Spent or discarded material is not expected to be a hazardous waste.

Disposal Methods : As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes : Not applicable

SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 3082
Description of the goods : Environmentally hazardous substance, liquid, n.o.s.
: (Sodium Pyrithione)



Class : 9
Packing group : III
Labels : 9
Emergency Response : 171
Guidebook Number

TDG

UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Sodium Pyrithione)
Class : 9
Packing group : III
Labels : 9

IATA

UN number : 3082
Description of the goods : Environmentally hazardous substance, liquid, n.o.s.
(Sodium Pyrithione)
Class : 9
Packing group : III
Labels : 9MI
Packing instruction (cargo aircraft) : 964
Packing instruction (passenger aircraft) : 964
Packing instruction (passenger aircraft) : Y964

IMDG-CODE

UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Sodium Pyrithione)
Class : 9
Packing group : III
Labels : 9
EmS Number 1 : F-A
EmS Number 2 : S-F
Marine pollutant : yes

SECTION 15. REGULATORY INFORMATION

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.



Pennsylvania Right To Know

1,3,5-triazine-1,3,5- (2H,4H,6H)-triethanol	4719-04-4	50 - 70 %
Water	7732-18-5	20 - 30 %
Sodium Pyrithione	3811-73-2	1 - 5 %

New Jersey Right To Know

1,3,5-triazine-1,3,5- (2H,4H,6H)-triethanol	4719-04-4	50 - 70 %
Water	7732-18-5	20 - 30 %
Sodium Pyrithione	3811-73-2	1 - 5 %

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 1
Major References : Available upon request.

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