

SAFETY DATA SHEET

1. Identification

Identification

Product name: CPVC-CTS Plastic Fittings

Additional identification

Chemical name: Chlorinated polyvinyl chloride

Recommended use and restriction on use

Recommended use: Plumbing Fittings

Restrictions on use: None identified.

Details of the supplier of the safety data sheet

Supplier

Company Name: NIBCO INC.
Address: 1516 Middlebury Street
Elkhart, IN 46516 - USA

Telephone: 574-295-3000 / 800-642-5463
Technical Services: Voice: 888-446-4226 / Fax 888-336-4226
E-mail contact: SDSCoordinator@NIBCO.com – <http://WWW.NIBCO.com>

Emergency telephone number:

EMERGENCY CALL ChemTel: 800-255-3924; International: +01-813-248-0585

2. Hazard(s) identification

Hazard Classification

Not classified

Label Elements:

Hazard Symbol: No symbol

Signal Word: No signal word.

Hazard Statement: not applicable

Precautionary Statements: not applicable

Other hazards which do not result in GHS classification: None identified.

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Dialkyltin bis-thioglycolate	10584-98-2	1 - 5%
Titanium dioxide	13463-67-7	1 - 5%

Tin alkyl thioacetate	26864-37-9	0.1 - 0.5%
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4. First-aid measures

- Ingestion:** Treat symptomatically. Get medical attention.
- Inhalation:** Remove exposed person to fresh air if adverse effects are observed.
- Skin Contact:** Wash with soap and water. If skin irritation occurs, get medical attention. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
- Eye contact:** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If hot melted material should splash into the eyes, flush eyes immediately with water for 15 minutes while holding the eyelids open. Immediately call a poison center or doctor. Treat as any foreign particulate matter.

Most important symptoms/effects, acute and delayed

Symptoms: See section 11.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use extinguishing agents appropriate for surrounding fire.

Unsuitable extinguishing media: Not determined.

Specific hazards arising from the chemical: Run-off water from fire fighting may have corrosive effects. When heated, hazardous gases may be released including: hydrogen chloride and chlorine. See section 10 for additional information.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: Thermoplastic polymers can burn. Protect product from flames; maintain proper clearance when using heat devices, etc. Irritating or toxic substances will be emitted upon burning, combustion or decomposition. Large masses of molten polymer held at elevated temperatures for extended periods of time may auto-ignite.

Special protective equipment for fire-fighters: Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations.

Methods and material for containment and cleaning up:

Pick up free solid for recycle and/or disposal.

Environmental Precautions:

Avoid release to the environment. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling:

Provide adequate ventilation. Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Contact with heated material may cause thermal burns. Conduct any operations emitting fumes or vapors (including thermoforming, heat joining, cutting and or sealing of articles and clean up) under well-ventilated conditions. Avoid breathing process vapors. Do not hold product for extended periods of time at elevated temperatures or allow thick masses of hot polymer to accumulate because they can decompose emitting hazardous gasses.

Recommended purging compounds are general purpose acrylic or acrylonitrile-butadiene-styrene (ABS) copolymer. Do not use flame-retarded or halogen-containing grades! Fume condensates may include hazardous contaminants from additives. Condensate may be combustible and should be periodically removed from exhaust hoods, ductwork, and other surfaces. Impervious gloves should be worn during cleanup operations to prevent skin contact.

Post thermal processing activities necessary to produce molded articles (such as cutting, sanding, sawing, grinding, drilling, or regrinding) may create dust or "fines." Powders, dust, and/or fines may pose a dust explosion hazard. Static ignition hazard can result from handling and use. Electrically bond and ground all containers and equipment before transfer or use of material. Avoid breathing dust.

Preparation may charge electrostatically; always use grounding leads when transferring from one container to another. Operators should wear antistatic footwear and clothing. Floors should be of the conducting type.

Do not taste, swallow, or chew products. Wash thoroughly after processing. Do not store or consume food in processing areas. Avoid conditions which create dust. Practice good housekeeping. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment.

Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. See section 10 for incompatible materials. Avoid excessive heat. Store in a well-ventilated place. Do not store near flammable agents. Store in dry, well ventilated place away from sources of heat and direct sunlight.

Maximum Storage Temperature: Not determined.

8. Exposure controls/personal protection

Control Parameters:

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Dialkyltin bis-thioglycolate - as Sn	STEL	0.2 mg/m ³	US. ACGIH Threshold Limit Values (02 2012)
Dialkyltin bis-thioglycolate - as Sn	TWA	0.1 mg/m ³	US. ACGIH Threshold Limit Values (02 2012)
Dialkyltin bis-thioglycolate - as Sn	REL	0.1 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Dialkyltin bis-thioglycolate - as Sn	PEL	0.1 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide - Total dust.	TWA	10 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Titanium dioxide	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values (02 2012)
Titanium dioxide - Respirable fraction.	TWA	1 mg/m ³	US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values (02 2013)
Tin alkyl thioacetate - as Sn	PEL	0.1 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Tin alkyl thioacetate - as Sn	TWA	0.1 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Tin alkyl thioacetate - as Sn	STEL	0.2 mg/m ³	US. ACGIH Threshold Limit Values (02 2012)
Tin alkyl thioacetate - as Sn	TWA	0.1 mg/m ³	US. ACGIH Threshold Limit Values (02 2012)
Tin alkyl thioacetate - as Sn	REL	0.1 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)

Appropriate engineering controls: Mechanical ventilation or local exhaust ventilation may be required. Provide adequate ventilation. No special requirements under ordinary conditions of use and with adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: If contact is likely, safety glasses with side shields are recommended.

Skin Protection

Hand Protection: Suitable gloves can be recommended by the glove supplier. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves. Suitable gloves can be recommended by the glove supplier.

Other:	Long sleeve shirt is recommended.
Respiratory Protection:	Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.
Hygiene measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

9. Physical and chemical properties
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Appearance

Physical state:	solid
Form:	Pellets
Color:	Grey
Odor:	Odorless
Odor threshold:	No data available.
pH:	No data available.
Melting Point:	No data available.
Boiling Point:	No data available.
Flash Point:	not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	1.47 - 1.51 68 °F (20 °C)
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
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Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Excessive heat.
Incompatible Materials:	Bases. Oxidizing agents. Finely powdered metals. Avoid reactive metals such as sodium, calcium, zinc, etc. Reacts violently with chlorosulfonic acid, oleum, alkali, metal-graphite compounds and oxygen. Alcohols. Amines. Alkanolamines. Phenols. Anhydrides. Halogens and halogenated compounds. Alkylene oxides. Ammonia. Avoid materials which liberate oxygen. Acetylide forming metals. Strong reducing agents. Alkali earth metals. Strong oxidizing agents. Peroxides. Mercaptans. Polymerization initiators. Strong alkalis. Inorganic nitrites or organic nitro compounds, nitrites or nitrates. Free radical initiators. mineral acids Aldehydes. Strong acids. Reducing agents. Material has strong solvent properties and can soften paint and rubber. Avoid contact with acetal, acetal copolymers, and amine containing materials. If processed together, these materials may be mutually destructive and degrade rapidly. Prevent cross contamination of feed stocks.
Hazardous Decomposition Products:	Hydrogen chloride.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Information on toxicological effects

Acute toxicity

Oral

Product:	May cause irritation of the gastrointestinal tract. Not classified for acute toxicity based on available data.
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Dermal

Product:	Not classified for acute toxicity based on available data.
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Inhalation

Product:	At processing or combustion temperatures this product may emit fumes and vapors that cause irritation, possibly severe, to the respiratory tract, eyes, or skin. Avoid inhalation of mists or vapors. Overexposure to vapors or mist may cause dizziness, headache, nausea, and/or flu-like symptoms. Persons with sensitive airways (e.g., asthmatics) may react to vapors. Avoid the inhalation of dust, mists, or vapors. Not classified for acute toxicity based on available data.
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Skin Corrosion/Irritation:

Product: Material may aggravate an existing dermatitis. Prolonged or repeated contact may cause irritation. Pre-existing skin conditions may be aggravated by prolonged or repeated exposure. Contact with heated material may cause thermal burns.
Remarks: Not classified as a primary skin irritant.

Serious Eye Damage/Eye Irritation:

Product: Remarks: Overexposure to thermal decomposition products produced by high processing temperatures may be irritating to the eye. Vapors may cause irritation.
Remarks: Not classified as a primary eye irritant.

Respiratory sensitization:

No data available

Skin sensitization:

Dialkyltin bis-thioglycolate Remarks: Category 1
Classification: May cause sensitization by skin contact. (Literature)

Specific Target Organ Toxicity - Single Exposure:

Product: Breathing of mist or aerosol may aggravate asthma and inflammatory or fibrotic pulmonary disease.

Aspiration Hazard:

No data available

Other effects:

Titanium dioxide Lung
Modified acrylic polymer Persons with sensitive airways (e.g., asthmatics) may react to vapors.

Chronic Effects

Carcinogenicity:

Product: Not available.
Titanium dioxide Titanium dioxide has been classified by IARC as possibly carcinogenic to humans (Group 2B) through inhalation. This classification is based on inadequate evidence for carcinogenicity in humans, but sufficient evidence of carcinogenicity in animals (rats). It should be noted that recent studies have demonstrated that the rat may be particularly sensitive to high levels of low toxicity dusts such as titanium dioxide. Epidemiology studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Titanium dioxide Overall evaluation: 2B. Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity:

Dialkyltin bis-thioglycolate Results of vitro mutagenicity tests have been positive.

Dialkyltin bis-thioglycolate Results of in vivo mutagenicity tests have been positive.

Reproductive toxicity:

Dialkyltin bis-thioglycolate May damage fertility or the unborn child.
May cause adverse reproductive effects based on animal data.

Specific Target Organ Toxicity - Repeated Exposure:

Dialkyltin bis-thioglycolate In studies with experimental animals repeated exposure to organotin compounds have impacted the thymus.
Oral: Target Organ(s): Thymus

12. Ecological information

Ecotoxicity

Fish

Dialkyltin bis-thioglycolate LC 50 (Zebra Fish, 96 h): > 11.4 mg/l

Titanium dioxide LC 50 (Fathead Minnow, 4 d): > 1,000 mg/l

Aquatic Invertebrates

Product: EC 50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l
NOEC (Water flea (Daphnia magna), 21 d): > 1 mg/l

Dialkyltin bis-thioglycolate EC 50 (Water flea (Daphnia magna), 48 h): > 1.4 mg/l

Toxicity to Aquatic Plants

Dialkyltin bis-thioglycolate EC 50 (Green algae (Scenedesmus quadricauda), 72 h): 0.56 mg/l

Toxicity to soil dwelling organisms

No data available

Sediment Toxicity

No data available

Toxicity to Terrestrial Plants

No data available

Toxicity to Above-Ground Organisms

No data available

Toxicity to microorganisms

Dialkyltin bis-thioglycolate EC 50 (Sludge): > 1,000 mg/l

Persistence and Degradability

Biodegradation

Dialkyltin bis-thioglycolate OECD TG 301 F, 35.3 %, 28 Days, Not readily degradable.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

Dialkyltin bis-thioglycolate Log Kow: 3.4 (Measured)

Mobility:

No data available

Other Adverse Effects:

No data available.

13. Disposal considerations

Disposal instructions: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Since emptied containers retain product residue, follow label warnings even after container is emptied.

Contaminated Packaging: Container packaging may exhibit hazards.

14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

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

None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4)

<u>Chemical Identity</u>	<u>CAS number</u>	<u>Reportable quantity</u>	<u>Calculated¹</u>
Tetrachloromethane	56-23-5	10 lbs	> 50000 lbs > 22680 kgs
Chloroform	67-66-3	10 lbs	> 50000 lbs > 22680 kgs

¹This is the amount product/material required to be released before CERCLA reporting is required.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 311 Classifications

None known.

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>CAS number</u>	<u>Percent by Weight</u>	<u>Reportable quantity</u>
Tetrachloromethane	56-23-5	43.0 PPM	10 lbs
Chloroform	67-66-3	39.0 PPM	10 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product may contain chemical(s) known to the state of California to cause cancer and/or birth defects. Additional information can be received upon request.

Inventory Status

Australia (AICS)

All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)

All substances contained in this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List (DSL) or are exempt.

China (IECSC)

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACH)

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)

This product contains a substance that is not listed on the Japanese Existing and New Chemical Substances (ENCS) list.

Korea (ECL)

All components are in compliance in Korea.

New Zealand (NZIoC)

All components are in compliance with chemical notification requirements in New Zealand.

Philippines (PICCS)

All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

Switzerland (SWISS)

All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)

All components of this product are listed on the Taiwan inventory.

United States (TSCA)

All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

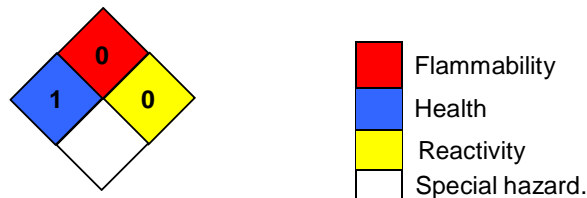
16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	0
Flammability	0
Physical Hazards	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 10/27/2017

Version #: 1.1

Source of information:

Based on information supplied by raw material supplier.

Disclaimer:

The information furnished in the NIBCO INC. SDS is for finished products and is based on the information furnished by the raw material supplier (Supplier information is on file at NIBCO INC. World Headquarters). As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.