

Product Name: **PVC and CPVC Thermoplastic**

Synonyms: **Polyvinyl Chloride and
Chlorinated Polyvinyl Chloride**

PVC & CPVC

Composition / Information on Ingredients

All ingredients are bound-up in the manufacturing process and are not expected to create any hazard in handling or use. Finished goods (e.g. rigid pipe, bar stock, duct, angle, joining strip or profile) are inert.

Physical and Chemical Properties

Boiling Point: N/A
Melting Point: N/A
Vapor Pressure: N/A
Vapor Density: N/A
Solubility in water: Insoluble
% Volatile by weight: N/A
Specific Gravity: (H₂O = 1) 1.35-1.55
Appearance and Odor: rigid pipe, bar stock, duct, angle, joining strip or profile. No odor.

Fire and Explosion Hazards

Flashpoint: Not applicable to solid products.

Ignition Temperature:
PVC: >730°F (>388°C)
CPVC: >830°F (>433°C)

Flammable Limits in Air (% by volume): Lower - N/A ; Upper - N/A

Extinguishing Media: Water spray, ABC dry chemical, AFFF, protein type air foams. Carbon dioxide may be ineffective on larger fires due to a lack of cooling capacity, which may result in reignition.

Firefighting Instructions: Wear positive pressure self-contained breathing apparatus (SCBA). Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source. In enclosed or poorly ventilated areas, wear SCBA during clean-up immediately after a fire as well as during the attack phase of firefighting operations.

Unusual Fire and Explosion Hazards: None known.

Stability and Reactivity

Chemical Stability: Stable.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: CO, CO₂ hydrogen chloride and small amounts of benzene and aromatic and aliphatic hydrocarbons. CPVC may also contribute small amounts of chloroform and carbon tetrachloride.

Health Hazard Identification

Threshold Limit Value: None established.

Effects of Overexposure:
There are no significant health hazards from vinyl compound at ambient temperature. Inhalation of decomposition or combustion products, especially hydrogen chloride, will cause irritation of the respiratory tract, eyes and skin. Depending on the severity of exposure, physiological response will be coughing, pain and inflammation. Individuals with bronchial asthma and other types of chronic obstructive respiratory diseases may develop bronchospasm if exposure is prolonged.

PVC & CPVC (cont.)

First Aid Procedures

If irritation persists from exposure to decomposition products, remove the affected individual from the area. Provide protection before reentry.

Disposal Considerations / Spill or Leak Procedures

Material is inert. Place into a container for reuse or disposal.

Water Disposal Method: Dispose of waste in accordance with federal, state and local regulations. For waste disposal purposes these products are not defined or designated as hazardous by current provisions of the Federal Resources Conservation and Recovery Act (RCRA) 40CFR261.

Exposure Controls / Personal Protection

Ventilation:

Provide efficient exhaust at all operations capable of creating fumes or vapors. Cutting or sawing, machining, heat welding, thermofolding and other operations involving heat sufficient to result in degradation should be examined to ensure adequate ventilation.

Respiratory Protection:

Not normally required. If overheating results in decomposition resulting in smoke or fumes, a NIOSH/MSHA approved combination high efficiency particulate filter with organic vapor cartridge can be used. Gross decomposition may require the use of a positive pressure self-contained breathing apparatus.

Protective Equipment:

Wear safety glasses.

Handling and Storage

As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information contained herein should be passed on to your customers or employees, as the case may be.

Transport Information

For domestic transportation purposes, these products are not defined or designated as a hazardous material by the U.S. Department of transportation under Title 49 of the Code of Federal Regulations, 1983 Edition.

DOT Proper Shipping name: N/A
DOT Hazard Class: Not hazardous
DOT label: None required
UN/NA Hazard No.: N/A

Disclaimer: The information herein is given in good faith but no warranty, expressed or implied, is made.

MATERIAL SAFETY DATA SHEET

ISSUE DATE: 11/05/93

REVISED DATE: 5/26/09

Supercedes: Any previous M.S.D.S. On This Product

EMERGENCY TELEPHONE NUMBER: CHEM-TEL, INC. 1-800-255-3924

I. IDENTIFICATION

PRODUCT NAME: **Ductmate PVC Cleat**
PRODUCT CLASS: Vinyl Resin (Polyvinyl Chloride)

DUCTMATE INDUSTRIES, INC
210 5th St.
Charleroi, PA 15022

II. HAZARDOUS INGREDIENTS

<u>MATERIAL:</u>	<u>% WEIGHT</u>	<u>C.A.S. Number</u>	<u>OSHA PEL (mg/m³)</u>	<u>ACGIH TLV (mg/m³)</u>
Calcium Carbonate	3-7	1317-65-3	5	10
Titanium Dioxide	1-5	13463-67-7	15	10
Talc	0.1-1	14807-96-6	2	2
Calcium Stearate	0.5-1.5	1592-23-0	N/E	10
Vinyl Chloride Polymer		75-01-4		

III. PHYSICAL DATA

APPEARANCE: Light Grey, Solid Extrusion/Pellet, Slight characteristic odor

SOLUBILITY IN WATER: N/E

SPECIFIC GRAVITY: N/E

IV. HEALTH HAZARD DATA

ROUTE OF EXPOSURE: The product is physically handled, but under normal use, presents no serious hazard.

EFFECTS OF OVEREXPOSURE:

ACUTE EFFECT: The vinyl compound presents no significant health hazards. Eye, skin and respiratory tract irritation may occur if thermal decomposition of the polymer occurs.

CHRONIC EFFECTS: The vinyl compound presents no significant health hazards. If thermal decomposition occurs, the acute irritation prevents one from experiencing prolonged exposure.

V. EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Not applicable.

SKIN CONTACT: Wash area of contact with soap and water. If irritation persists, seek medical attention.

EYE CONTACT: Flush immediately with running water for fifteen minutes. If irritation persists, seek medical attention.

INGESTION: N/A

VI. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 391° C

AUTOIGNITION TEMPERATURE: 454° C

FLAMMABILITY: The polyvinyl chloride will only burn if there is a continuous application of intense heat.

EXTINGUISHING MEDIA: Use water, ABC dry chemical or protein-type air foam.

SPECIAL PROCEDURES: Positive pressure, self-contained breathing apparatus must be worn.

VII. SPILL OR LEAK PROCEDURES

Any scrap should be placed into a closed container for disposal.

Waste Disposal Method: Dispose of in accordance with appropriate federal, state and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

VENTILATION: General exhaust ventilation should be provided to keep worker exposures within allowable limits.

RESPIRATORY PROTECTION: Equipment is not normally required. However, abnormal conditions may require one to wear

NIOSH/MSHA: Approved positive pressure self-contained breathing apparatus.

EYE PROTECTION: Personal protective equipment should be worn when there is a reasonable probability of injury.

PROTECTIVE GLOVES: As needed.

IX. CARCINOGENIC ASSESSMENT

Polyvinyl Chloride has NOT been identified as a suspect carcinogen by NTP and IARC.

X. REACTIVITY DATA

STABILITY: Stable under normal conditions of handling and use.

CONDITIONS TO AVOID: Extreme heat.

INCOMPATIBILITY: Avoid contact with strong oxidizers. Also avoid contact with acetal or acetal copolymers and with amine-containing compounds during processing.

HAZARDOUS DECOMPOSITION PRODUCT: Upon heating Hydrogen Chloride, carbon monoxide, carbon dioxide and small amounts of benzene, aliphatic and aromatic compounds are released.

HAZARDOUS POLYMERIZATION: Will not occur.

XI. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Use good housekeeping practices to avoid excessive dust accumulation.

This information is taken from sources or based upon data believed to be reliable; however, DUCTMATE INDUSTRIES, INC. makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.



SAFETY DATA SHEET

1. Identification

Product identifier	HERCULES PVC CEMENT HEAVY BODY, SLOW SET CLEAR AND GRAY
Other means of identification	
SDS number	7102E
Synonyms	Part Numbers: CLEAR – 60155, 60160, 60165 GRAY – 60210, 60215, 60220, 60225
Recommended use	Joining PVC Pipes
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company Name	HCC Holdings, Inc. an Oatey Affiliate
Address	4700 West 160th Street Cleveland, OH 44135
Telephone	216-267-7100
E-mail	info@oatey.com
Transport Emergency	Chemtrec 1-800-424-9300 (Outside the US 1-703-527-3887)
Emergency First Aid	1-877-740-5015
Contact person	MSDS Coordinator

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Aspiration hazard	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	Highly flammable liquid and vapor. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.
Precautionary statement	
Prevention	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
Response	Rinse mouth. Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. May form explosive peroxides. Contains a chemical classified by the US EPA as a suspected possible carcinogen.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Furan, Tetrahydro-	109-99-9	30-60
2-Propanone	67-64-1	10-30
Cyclohexanone	108-94-1	10-30
Polyvinyl chloride	9002-86-2	10-30
Methyl ethyl ketone	78-93-3	5-10
Colloidal silicon dioxide	112945-52-5	1-5

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Aspiration may cause pulmonary edema and pneumonitis.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not taste or swallow. Avoid breathing mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Colloidal silicon dioxide (CAS 112945-52-5)	TWA	0.8 mg/m3	Unspecified.
		20 mppcf	Unspecified.

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

Components	Type	Value
Polyvinyl chloride (CAS 9002-86-2)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
2-Propanone (CAS 67-64-1)	PEL	2400 mg/m3	
		1000 ppm	
Cyclohexanone (CAS 108-94-1)	PEL	200 mg/m3	
		50 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	PEL	590 mg/m3	
		200 ppm	
Methyl ethyl ketone (CAS 78-93-3)	PEL	590 mg/m3	
		200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value
Colloidal silicon dioxide (CAS 112945-52-5)	TWA	0.8 mg/m ³
		20 mppcf

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
2-Propanone (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
Cyclohexanone (CAS 108-94-1)	STEL	50 ppm	
	TWA	20 ppm	
Furan, Tetrahydro- (CAS 109-99-9)	STEL	100 ppm	
	TWA	50 ppm	
Methyl ethyl ketone (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
Polyvinyl chloride (CAS 9002-86-2)	TWA	1 mg/m ³	Respirable fraction.

U.S. - NIOSH

Components	Type	Value	Form
Colloidal silicon dioxide (CAS 112945-52-5)	REL	6 mg/m ³	Unspecified.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
2-Propanone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm
Colloidal silicon dioxide (CAS 112945-52-5)	TWA	6 mg/m ³
Cyclohexanone (CAS 108-94-1)	TWA	100 mg/m ³ 25 ppm
Furan, Tetrahydro- (CAS 109-99-9)	STEL	735 mg/m ³
	TWA	250 ppm 590 mg/m ³
Methyl ethyl ketone (CAS 78-93-3)	STEL	200 ppm 885 mg/m ³
	TWA	300 ppm 590 mg/m ³ 200 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
2-Propanone (CAS 67-64-1)	50 mg/l	Acetone	Urine	*
Cyclohexanone (CAS 108-94-1)	80 mg/l	1,2-Cyclohexanediol, with hydrolysis	Urine	*
		Cyclohexanol, with hydrolysis	Urine	*
Furan, Tetrahydro- (CAS 109-99-9)	2 mg/l	Tetrahydrofuran	Urine	*

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Methyl ethyl ketone (CAS 78-93-3)	2 mg/l	MEK	Urine	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Cyclohexanone (CAS 108-94-1) Skin designation applies.

US - Tennessee OELs: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Furan, Tetrahydro- (CAS 109-99-9) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards

Cyclohexanone (CAS 108-94-1) Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Wash hands after handling and before eating.

9. Physical and chemical properties

Appearance

Opaque.or Translucent.

Physical state

Liquid.

Form

Liquid.

Color

Gray or Clear.

Odor

Solvent.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

151 °F (66.11 °C)

Flash point

14.0 - 23.0 °F (-10.0 - -5.0 °C)

Evaporation rate

5.5 - 8

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	145 mm Hg @ 20 C
Vapor density	2.5
Relative density	0.88 - 0.92
Solubility(ies)	
Solubility (water)	Negligible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	1200 - 2500 cP
Other information	
Bulk density	7.5 lb/gal
VOC (Weight %)	< 510 g/l SQACMD Method 304

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May be fatal if swallowed and enters airways. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May be fatal if swallowed and enters airways. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause respiratory irritation.

Components	Species	Test Results
Cyclohexanone (CAS 108-94-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	948 mg/kg
<i>Inhalation</i>		
LC50	Rat	8000 ppm, 4 hours
<i>Oral</i>		
LD50	Rat	1540 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

Suspected of causing cancer. In 2012 USEPA Integrated Risk Information System (IRIS) reviewed a two species inhalation lifetime study on THF conducted by NTP (1998). Male rats developed renal tumors and female mice developed liver tumors while neither the female rats nor the male mice showed similar results. Because the carcinogenic mechanisms could not be identified clearly in either species for either tumor, the EPA determined that the male rat and female mouse findings are relevant to the assessment of carcinogenic potential in humans. Therefore, the IRIS review concludes that these data in aggregate indicate that there is "suggestive evidence of carcinogenic potential" following exposure to THF by all routes of exposure. This product contains polyvinyl chloride (PVC) that is not a fabricated product, and is therefore, defined and regulated as a toxic and hazardous substance under 29 C.F.R. § 1910.1017 due to the presumed presence of residual vinyl chloride monomer. The concentrations of residual vinyl chloride calculated to be contained in this product are well below the threshold for classification in accordance with 29 C.F.R. § 1910.1200.

IARC Monographs. Overall Evaluation of Carcinogenicity

Colloidal silicon dioxide (CAS 112945-52-5)	3 Not classifiable as to carcinogenicity to humans.
Cyclohexanone (CAS 108-94-1)	3 Not classifiable as to carcinogenicity to humans.
Polyvinyl chloride (CAS 9002-86-2)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer
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Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Respiratory tract irritation. Narcotic effects.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Cyclohexanone (CAS 108-94-1)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 481 - 578 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

2-Propanone (CAS 67-64-1)	-0.24
Cyclohexanone (CAS 108-94-1)	0.81
Furan, Tetrahydro- (CAS 109-99-9)	0.46
Methyl ethyl ketone (CAS 78-93-3)	0.29

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	T11, TP1, TP8, TP27
Packaging exceptions	150
Packaging non bulk	201
Packaging bulk	243

IATA

UN number	UN1133
UN proper shipping name	Adhesives
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1133
UN proper shipping name	ADHESIVES
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
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TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Polyvinyl chloride (CAS 9002-86-2)	Cancer Central nervous system Liver Blood Flammability
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CERCLA Hazardous Substance List (40 CFR 302.4)

2-Propanone (CAS 67-64-1)	LISTED
Cyclohexanone (CAS 108-94-1)	LISTED
Furan, Tetrahydro- (CAS 109-99-9)	LISTED
Methyl ethyl ketone (CAS 78-93-3)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

2-Propanone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

2-Propanone (CAS 67-64-1)	35 %WV
Methyl ethyl ketone (CAS 78-93-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

2-Propanone (CAS 67-64-1)	6532
Methyl ethyl ketone (CAS 78-93-3)	6714

US state regulations

US. Massachusetts RTK - Substance List

- 2-Propanone (CAS 67-64-1)
- Colloidal silicon dioxide (CAS 112945-52-5)
- Cyclohexanone (CAS 108-94-1)
- Furan, Tetrahydro- (CAS 109-99-9)
- Methyl ethyl ketone (CAS 78-93-3)

US. New Jersey Worker and Community Right-to-Know Act

- 2-Propanone (CAS 67-64-1)
- Cyclohexanone (CAS 108-94-1)
- Furan, Tetrahydro- (CAS 109-99-9)
- Methyl ethyl ketone (CAS 78-93-3)
- Polyvinyl chloride (CAS 9002-86-2)

US. Pennsylvania Worker and Community Right-to-Know Law

- 2-Propanone (CAS 67-64-1)
- Colloidal silicon dioxide (CAS 112945-52-5)
- Cyclohexanone (CAS 108-94-1)
- Furan, Tetrahydro- (CAS 109-99-9)
- Methyl ethyl ketone (CAS 78-93-3)

US. Rhode Island RTK

- 2-Propanone (CAS 67-64-1)
- Cyclohexanone (CAS 108-94-1)
- Furan, Tetrahydro- (CAS 109-99-9)
- Methyl ethyl ketone (CAS 78-93-3)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. This product contains trace amounts of chemicals known to the state of California to cause cancer. Under normal use conditions, exposure to these chemicals at levels above the State of California "No significant Risk Level" (NSRL) are unlikely. The use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 will minimize exposure levels to these chemicals.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date	04-August-2014
Revision date	15-December-2014
Version #	02
HMIS® ratings	Health: 2 Flammability: 3 Physical hazard: 0
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.

OSHA-Required Health And Safety Information!

This Material Safety Data Sheet (MSDS) was requested moments ago from Hercules Automated Fax Information System. Please forward it immediately to the person in charge of MSDS's, or retain it at the machine until claimed.

Section 1

MATERIAL SAFETY DATA SHEET # 70
Hercules Purple PVC Primer



MATERIAL SAFETY INFORMATION SERVICE

Hercules Chemical Company Inc.
111 South Street
Passaic NJ 07055
Phone (800) 221-9330
Fax (800) 333-3456

Date Prepared: 3/24/1994 Last Reviewed: 1/26/2009

Meets OSHA 29 CFR 1910.1200

Section 2 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s), CAS Numbers)	OSHA PEL TWA	ACGIH TLV TWA	Other Limits	Upper Bound Limit if SARA Reportable
Tetrahydrofuran (109-99-9)	200PPM	200PPM	N/A	--
Methyl Ethyl Ketone (78-93-3)	200PPM	200PPM	N/A	--
Cyclohexanone (108-94-1)	50PPM	20PPM	N/A	--
Acetone (CAS67-64-1)	1000 PPM	500PPM	750 STEL	

HMIS Hazard Rating: Health: 3 Flammability: 4 Reactivity: 1 Personal Protection: G

Section 3 - Physical/Chemical Characteristics

Boiling Point (°F): 133 Based on first boiling component-Acetone	Specific Gravity (H ₂ O = 1): 0.820 ± 0.03	Vapor Density (Air = 1): 2.0 to 2.5	Vapor Pressure (mm Hg): 400 @ 104° F Based on first boiling component-Acetone
Melting Point (° F): N/A	Evaporation Rate: (Butyl Acetate = 1) 7-11	Solubility in Water: 50% to 75%	VOC Level (g/l): 510
Appearance And Color: Purple Liquid		Odor: Ethereal & Acetone-like	

Section 4 - Fire And Explosion Hazard Data

Flash Point: 0° to -4.0° F (TCC) (Based on acetone)	Flammable Limits:	LEL: 2%	UEL: 13.0%
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Extinguishing Media: Foam/Dry chemical/CO₂

Special Firefighting Procedures:

Handle as flammable liquid. Wear self-contained breathing apparatus & chemical goggles. Water may be ineffective, but should be used to keep fire-exposed containers cool.

Unusual Fire And Explosion Hazards:

Vapor is heavier than air and travels considerable distance to sources of ignition and flashback. On long standing may cause peroxides which may cause violent reaction especially upon evaporation to dryness.

Continued on Next Page

Section 5 - Reactivity Data

Stability: Stable **Conditions To Avoid:** Keep in closed containers away from sparks & open flame.

Incompatibility (Materials To Avoid): Strong oxidizing materials, Lithium Aluminum Hydride, Sodium Aluminum Hydroxide, Sodium & Potassium Hydroxides.

Hazardous Decomposition: Carbon dioxide and carbon monoxide are formed. Irritating Peroxide fumes are formed when heated to decomposition.

Hazardous Polymerization: Avoid excessive exposure to air and cationic initiators like Lewis Acids.

Section 6 - Health Hazard Data

Routes of Entry: Inhalation YES/Primary Skin YES/Primary Ingestion YES/Secondary

Health Hazards:

Corrosive to eyes and skin irritant. Severe overexposure can cause headache, dizziness and narcosis. May cause dermatosis and dermatitis with prolonged repeated contact.

Carcinogenicity: NTP NO IARC NO OSHA Regulated NO

Signs And Symptoms of Exposure:

INGESTION: No effects expected. INHALATION: Will cause irritation of mucous membranes, nose, eyes, & throat; coughing, difficulty of breathing. Exposure to high vapor concentration may cause headache, dizziness, nausea, narcosis. SKIN CONTACT: Prolonged skin contact causes common solvent defatting effect. EYE CONTACT: Vapors slightly uncomfortable. Splashes irritating. Will cause painful burning or stinging of eyes & lids, watering of eyes and conjunctiva.

Medical Conditions Generally Aggravated By Exposure:

No data found

Emergency And First Aid Procedures:

INGESTION: DO NOT INDUCE VOMITING. If conscious, dilute by giving 2 glasses of water. Call a physician immediately. INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. Call a physician. SKIN CONTACT: Wash affected area with soapy water. Remove contaminated clothing. EYE CONTACT: Immediately flush eyes with plenty of water for 15 minutes. Consult a physician.

Continued on Next Page

Section 7 - Precautions For Safe Handling And Use:**Steps To Be Taken In Case Material Is Released Or Spilled:**

Eliminate sources of ignition. Absorb with sand or inert absorbing material. Dispose of with solid waste in accordance with all regulations. Flush spill area with water. Avoid flushing into confined areas.

Waste Disposal Method:

Incinerate in accordance with federal, state and local regulations.

Precautions To Be Taken In Handling And Storing:

Store in cool, well-ventilated area. Keep away from open flame and sources of ignition.

Other Precautions:

Use normal good personal hygiene.

Section 8 - Control Measures:**Respiratory Protection:**

In confined spaces or other circumstances where adequate ventilation cannot be assured use NIOSH-approved respirator, positive pressure airline mask, or self contained breathing apparatus.

Ventilation: Local Exhaust As required

Mechanical All ventilating devices must be located so they do not provide a source of ignition.

Special When using cements in an area of limited ventilation, use a ventilation device such as a fan or air mover to maintain a safe air concentration.

Other: N/A

Gloves: PVA gloves

Eye Protection: Chemical Safety goggles.

Other Protective

Clothing: Apron, boots, eye bath, safety shower

Work/Hygienic Practices Wash thoroughly after handling. Avoid ingestion of the cements. do not eat or drink when using cements or in the vicinity where such cements are being used.



FACTS
Faxed
FAST!

For Hercules Material Safety Data Sheets by fax anytime, day or night, just call 1-800-942-INFO (1-800-942-4636) from any Touch-Tone phone. Have your fax number ready. Checking the product label for the correct MSDS # will save time.

