

**MATERIAL SAFETY DATA SHEET**

**SECTION 1**

**PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: WET SET PVC CEMENT  
Part #s Covered: See SECTION 16  
Product Use: Cement for PVC Plastic Pipe  
Formula: PVC Resin in Solvent Solution  
Synonyms: PVC Plastic Pipe Cement  
Firm Name & Address: WILLIAM H. HARVEY COMPANY 4334 South 67<sup>th</sup> Street  
Mailing Address: Omaha, Nebraska 68117, U.S.A. <http://www.wmharvey.com>  
Phone Number: (402) 331-1175 or (800) 228-9681  
Emergency Phone Numbers: For Emergency First Aid call Toll Free 1-877-740-5015 For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared By: Corporate Director - Safety and Environmental Compliance  
Preparation Date: February 25, 2008

**SECTION 2**

**COMPOSITION/INFORMATION ON INGREDIENTS**

<u>INGREDIENTS:</u>	<u>% wt:</u>	<u>CAS NUMBER:</u>	<u>ACGIH TLV TWA:</u>	<u>OSHA PEL</u>	<u>TWA:</u>	<u>OTHER:</u>
Tetrahydrofuran	40 - 75%	109-99-9	50 ppm(skin) 100 ppm STEL	200 ppm		25 ppm (Mfg)
Methyl Ethyl Ketone	0 - 35%	78-93-3	200 ppm 300 ppm STEL	200 ppm		None
PVC Resin (Non-hazardous)	12 - 20%	9002-86-2	10 mg/m3	15 mg/m3		None
Cyclohexanone	7 - 12%	108-94-1	20 ppm(skin) 50 ppm STEL	25 ppm		None
Amorphous Fumed Silica (Non-hazardous)	1 - 5%	112945-52-5	10 mg/m3	None		None Established

OSHA Hazard Classification: Flammable, irritant, organ effects

**SECTION 3**

**HAZARDS IDENTIFICATION**

Emergency Overview:  
Blue liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

**SECTION 4**

**FIRST AID PROCEDURES**

CALL TOLL FREE: 1-877-740-5015  
Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops. Remove dried cement with HARVEY'S POWER SCRUB hand cleaner or baby oil.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.  
Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.  
Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**SECTION 5 FIRE FIGHTING MEASURES**

Flashpoint / Method: 0° - 5° F. (-18° - -15° C.) / PMCC  
Flammability: LEL = 1.8 % Volume, UEL = 11.8 % Volume  
Extinguishing: Use dry chemical, CO<sub>2</sub>, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.  
Media:  
Special Fire Fighting Procedure: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.  
Unusual Fire and Explosion Hazards: Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.  
Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide, carbon dioxide and hydrogen chloride.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Spill or Leak Procedures: Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

**SECTION 7 HANDLING AND STORAGE**

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.  
Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.  
Other: "Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.  
Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.  
Skin Protection: Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

SECTION 8 (Continued)

Eye Safety glasses with side shields or safety goggles.  
Protection:  
Other: Eye wash and safety shower should be available.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: 151° F / 66° C  
Melting Point: Not applicable  
Vapor Pressure: 145 mmHg @ 20 Degrees C  
Vapor Density: (Air = 1) 2.5  
Volatile Components: 82-86%  
Solubility In Water: Negligible  
pH: Not applicable  
Specific Gravity: 0.91 +/- 0.02 @ 20° C.  
Evaporation Rate: (BUAC = 1) = 5.5 - 8.0  
Appearance: Blue Liquid  
Odor: Ether-like  
Will Dissolve In: Tetrahydrofuran  
Material Is: Liquid

**SECTION 10 STABILITY AND REACTIVITY**

Stability: Stable.  
Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.  
Hazardous Combustion will produce toxic and irritating vapors  
Decomposition including carbon monoxide, carbon dioxide and hydrogen  
Products: chloride.  
Incompatibility/ Oxidizing agents, alkalies, amines, ammonia, acids, chlorine  
Materials To Avoid: compounds, chlorinated inorganics (potassium, calcium and  
sodium hypochlorite) and hydrogen peroxides. May attack  
plastic, resins and rubber.  
Hazardous Will not occur.  
Polymerization:

**SECTION 11 TOXICOLOGICAL INFORMATION**

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.  
Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone and cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.  
Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.  
Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.  
Chronic Prolonged or repeated overexposure may cause dermatitis and damage  
Toxicity: to the kidney, liver, lungs and central nervous system.  
Toxicity Data: Cyclohexanone: Oral rat LD50: 1,620 mg/kg  
Inhalation rat LC50: 8,000 ppm/4 hours  
Skin rabbit LD50: 1 mL/kg  
Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg  
Inhalation rat LC50: 21,000 ppm/3 hours  
Methyl Ethyl Ketone: Oral rat LD50: 2,737 mg/kg  
Inhalation rat LC50: 23,500 mg/m3/8 hours  
Skin rabbit LD50: 6,480 mg/kg

SECTION 11 (Continued)

Sensitization: None of the components are known to cause sensitization.  
Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to Tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health are unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.  
Mutagenicity: Cyclohexanone has been positive in bacterial and mammalian assays. Methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.  
Reproductive Toxicity: Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.  
Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

**SECTION 12 ECOLOGICAL INFORMATION**

This product is not expected to be toxic to aquatic organisms.  
Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l.  
Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.  
Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.  
VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.  
VOC Level: 600 g/l per SCAQMD Test Method 316A.

**SECTION 13 DISPOSAL CONSIDERATIONS**

Waste Disposal: Dispose in accordance with current local, state and federal regulations.  
RCRA Hazardous Waste Number: U057, U159, U213  
EPA Hazardous Waste ID Number: D001, D035, F003, F005  
EPA Hazard Waste Class: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

**SECTION 14 TRANSPORT INFORMATION**

DOT	<u>Less than 1 Liter (0.3 gal)</u>	<u>Greater than 1 Liter (0.3 gal)</u>
Proper Shipping Name:	Consumer Commodity	Adhesives
Hazard Class/Packing Group:	ORM-D	3, PGII
UN/NA Number:	None	UN1133
Hazard Labels:	None	Flammable Liquid
IMDG		
Proper Shipping Name:	Adhesives	Adhesives
Hazard Class/Packing Group:	3, II	3, II
UN Number:	UN1133	UN1133
Label:	None (Limited Quantities are excepted from labeling)	Class 3 (Flammable Liquid)

2004 North American Emergency Response Guidebook Number: 127 or 128

**SECTION 15 REGULATORY INFORMATION**

Hazard Category for Section 311/312: Acute Health, Chronic Health, Flammable

Section 302 Extremely Hazardous Substances (TPQ): This product does not contain chemicals regulated under SARA Section 302.

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

<u>Chemical</u>	<u>CAS #</u>	<u>% by wt.</u>
Methyl Ethyl Ketone	78-93-3	0 - 35%

CERCLA 103 Reportable Quantity: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Tetrahydrofuran (75% maximum) of 1,000 lbs, is 1,333 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: 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. William H. Harvey Company strongly encourages the use of proper personal protective equipment (PPE) and ventilation guidelines noted in Section 8 to minimize exposure to these chemicals.

TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

Canadian WHIMS Classification: Class B, Division 2; Class D, Division 2, Subdivision B; Class D, Division 2, Subdivision A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**SECTION 16 OTHER INFORMATION**

NFPA and HMIS

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None

HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Part #s covered by this MSDS:

00396	018407	018418	018426	018435-12	018969
018400-24	018410-24	018419	018427	018436	018970
018400-6	018410-48D	018420-12	018428	018437	018990
018401-24	018411-24	018420-24D	018429	018438	019505
018402-24	018413-24	018421-12	018430-12	018439	019550
018403-24	018414-24	018422-12	018431-12	018440	019551
018404-24	018415-24	018423-12	018432	018441	019552
018405	018416	018424-12	018433	018963	
018406	018417	018425-12	018434	018964	

Disclaimer:

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, William H. Harvey Company cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

**MATERIAL SAFETY DATA SHEET**

**SECTION 1**

**PRODUCT AND COMPANY IDENTIFICATION**

Trade Name: PURPLE PRIMER  
Part #s Covered: See SECTION 16  
Product Use: Primer for PVC and CPVC Plastic Pipe  
Formula: See SECTION 2  
Synonyms: Plastic Pipe Primer  
Firm Name & Mailing Address: WILLIAM H. HARVEY COMPANY 4334 South 67<sup>th</sup> Street  
Omaha, Nebraska 68117, U.S.A. <http://www.wmharvey.com>  
Phone Number: (402) 331-1175 or (800) 228-9681  
Emergency Phone Numbers: For Emergency First Aid call Toll Free 1-877-740-5015 For  
chemical transportation emergencies ONLY, call Chemtrec at  
1-800-424-9300. Outside the U.S. 1-703-527-3887.  
Prepared By: Corporate Director - Safety and Environmental Compliance  
Preparation Date: February 25, 2008

**SECTION 2**

**COMPOSITION/INFORMATION ON INGREDIENTS**

<u>INGREDIENTS:</u>	<u>% wt:</u>	<u>CAS NUMBER:</u>	<u>ACGIH TLV TWA:</u>	<u>OSHA PEL TWA:</u>	<u>OTHER:</u>
Methyl Ethyl Ketone	25 - 80%	78-93-3	200 ppm 300 ppm STEL	200 ppm	None
Acetone	0 - 40%	67-64-1	500 ppm 750 ppm STEL	1000 ppm	None
Tetrahydrofuran	5 - 30%	109-99-9	50 ppm(skin) 100 ppm STEL	200 ppm	25 ppm (Mfg)
Cyclohexanone	10 - 20%	108-94-1	20 ppm(skin) 50 ppm STEL	25 ppm	None

OSHA Hazard Classification: Flammable, irritant, organ effects

**SECTION 3**

**HAZARDS IDENTIFICATION**

Emergency Overview:  
Purple liquid with an ether-like odor. Extremely flammable liquid and vapor. Vapors may cause flash fire. May cause eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects. Swallowing may cause irritation, nausea, vomiting, diarrhea and kidney or liver disorders. Aspiration hazard. May be fatal if swallowed. Symptoms may be delayed.

**SECTION 4**

**FIRST AID PROCEDURES**

CALL TOLL FREE: 1-877-740-5015  
Skin: Remove contaminated clothing immediately. Wash all exposed areas with soap and water. Get medical attention if irritation develops.  
Eyes: If material gets into eyes or if fumes cause irritation, immediately flush eyes with plenty of water until chemical is removed. If irritation persists, get medical attention immediately.  
Inhalation: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.  
Ingestion: **DO NOT INDUCE VOMITING.** Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a Poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

**SECTION 5 FIRE FIGHTING MEASURES**

Flashpoint / Method: 0° - 5° F. (-18° - -15° C.) / PMCC  
Flammability: LEL = 1.8 % Volume, UEL = 11.5 % Volume  
Extinguishing: Use dry chemical, CO<sub>2</sub>, or foam to extinguish fire. Cool fire exposed container with water. Water may be ineffective as an extinguishing agent.  
Media:  
Special Fire: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.  
Fighting Procedure:  
Unusual Fire and Explosion: Extremely flammable liquid. Keep away from heat and all sources of ignition including sparks, flames, lighted cigarettes and pilot lights. Containers may rupture or explode in the heat of a fire. Vapors are heavier than air and may travel to a remote ignition source and flash back. This product contains tetrahydrofuran that may form explosive organic peroxide when exposed to air or light or with age.  
Hazards:  
Hazardous Decomposition Products: Combustion will produce toxic and irritating vapors including carbon monoxide and carbon dioxide.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Spill or Leak Procedures: Remove all sources of ignition and ventilate area. Stop leak if it can be done without risk. Personnel cleaning up the spill should wear appropriate personal protective equipment, including respirators if vapor concentrations are high. Soak up spill with an inert absorbent such as sand, earth or other non-combusting material. Put absorbent material in covered, labeled metal containers. Prevent liquid from entering watercourses, sewers and natural waterways. Report releases to authorities as required. See Section 13 for disposal information.

**SECTION 7 HANDLING AND STORAGE**

Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Use with adequate ventilation (equivalent to outdoors). Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from heat, sparks, flames and all other sources of ignition. No smoking in storage or use areas. Keep containers closed when not in use.  
Storage: Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.  
Other: "Empty" containers retain product residue and can be hazardous. Follow all MSDS precautions in handling empty containers. Do not cut or weld on or near empty or full containers.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Ventilation: Open doors & windows. Provide ventilation capable of maintaining emissions at the point of use below recommended exposure limits. If used in enclosed area, use exhaust fans. Exhaust fans should be explosion-proof or set up in a way that flammable concentrations of solvent vapors are not exposed to electrical fixtures or hot surfaces.  
Respiratory Protection: For operations where the exposure limit may be exceeded, a NIOSH approved organic vapor respirator or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration, select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.  
Skin Protection: Rubber gloves are suitable for normal use of the product. For long exposures chemical resistant gloves may be required such as 4H(tm) or Silver Shield(tm) to avoid prolonged skin contact.

SECTION 8 (Continued)

Eye Protection: Safety glasses with side shields or safety goggles.  
Other: Eye wash and safety shower should be available.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Boiling Point: 151° F / 66° C  
Melting Point: Not applicable  
Vapor Pressure: 70 mmHg @ 20° C  
Vapor Density: (Air = 1) 2.5  
Volatile Components: 99.96%  
Solubility In Water: Negligible  
pH: Not applicable  
Specific Gravity: 0.84 +/- 0.02 @ 20° C.  
Evaporation Rate: (BUAC = 1) = 5.5 - 8.0  
Appearance: Purple Liquid  
Odor: Ether-like  
Will Dissolve In: Organic solvents  
Material Is: Liquid

**SECTION 10 STABILITY AND REACTIVITY**

Stability: Stable.  
Conditions To Avoid: Avoid heat, sparks, flames and other sources of ignition.  
Hazardous Decomposition: Combustion will produce toxic and irritating vapors including carbon monoxide and carbon dioxide.  
Products:  
Incompatibility/ Materials To Avoid: Oxidizing agents, alkalies, amines, ammonia, acids, chlorine compounds, chlorinated inorganics (potassium, calcium and sodium hypochlorite) and hydrogen peroxides. May attack plastic, resins and rubber.  
Hazardous Polymerization: Will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION**

Inhalation: Vapors or mists may cause mucous membrane and respiratory irritation, coughing, headache, dizziness, dullness, nausea, shortness of breath and vomiting. High concentrations may cause central nervous system depression, narcosis and unconsciousness. May cause kidney, liver and lung damage.  
Skin: May cause irritation with redness, itching and pain. Methyl ethyl ketone and cyclohexanone may be absorbed through the skin causing effects similar to those listed under inhalation.  
Eye: Vapors may cause irritation. Direct contact may cause irritation with redness, stinging and tearing of the eyes. May cause eye damage.  
Ingestion: Swallowing may cause abdominal pain, nausea, vomiting and diarrhea. Aspiration during swallowing or vomiting can cause chemical pneumonia and lung damage. May cause kidney and liver damage.  
Chronic Toxicity: Prolonged or repeated overexposure may cause dermatitis and damage to the kidney, liver, lungs and central nervous system.  
Toxicity Data: Acetone: Oral rat LD50: 5,800 mg/kg  
Inhalation rat LC50: 50,100 mg/m3/8 hours  
Cyclohexanone: Oral rat LD50: 1,620 mg/kg  
Inhalation rat LC50: 8,000 ppm/4 hours  
Skin rabbit LD50: 1 mL/kg  
Tetrahydrofuran: Oral rat LD50: 1,650 mg/kg  
Inhalation rat LC50: 21,000 ppm/3 hours  
Methyl Ethyl Ketone: Oral rat LD50: 2,737 mg/kg  
Inhalation rat LC50: 23,500 mg/m3/8 hours  
Skin rabbit LD50: 6,480 mg/kg



SECTION 11 (Continued)

Sensitization: None of the components are known to cause sensitization.

Carcinogenicity: None of the components are listed as a carcinogen or suspect carcinogen by NTP, IARC or OSHA. The National Toxicology Program has reported that exposure of mice and rats to Tetrahydrofuran (THF) vapor levels up to 1800 ppm 6 hr/day, 5 days/week for their lifetime caused an increased incidence of kidney tumors in male rats and liver tumors in female mice. The significance of these findings for human health are unclear at this time, and may be related to "species specific" effects. Elevated incidences of tumors in humans have not been reported for THF. ACGIH has classified cyclohexanone (CYH) and tetrahydrofuran as "A3," Confirmed Animal Carcinogens with Unknown Relevance to Humans.

Mutagenicity: Cyclohexanone has been positive in bacterial and mammalian assays. Acetone, methyl ethyl ketone and tetrahydrofuran are generally thought not to be mutagenic.

Reproductive Toxicity: Methyl ethyl ketone and cyclohexanone have been shown to cause embryofetal toxicity and birth defects in laboratory animals. Acetone and tetrahydrofuran have been found to cause adverse developmental effects only when exposure levels cause other toxic effects to the mother.

Medical Conditions Aggravated By Exposure: Persons with pre-existing skin, lung, kidney or liver disorders may be at increased risk from exposure to this product.

**SECTION 12 ECOLOGICAL INFORMATION**

This product is not expected to be toxic to aquatic organisms.

Cyclohexanone: 96 hour LC50 values for fish is over 100 mg/l.

Tetrahydrofuran: 96 hour LC50 fathead minnow: 2160 mg/L.

Methyl Ethyl Ketone: 96 hour LC50 for fish is greater than 100 mg/L.

Acetone: 96 hour LC50 for fish is greater than 100 mg/L.

VOC Information: This product emits VOC's (volatile organic compounds) in its use. Make sure that use of this product complies with local VOC emission regulations, where they exist.

VOC Level: 750 g/l per SCAQMD Test Method 316A.

**SECTION 13 DISPOSAL CONSIDERATIONS**

Waste Disposal: Dispose in accordance with current local, state and federal regulations.

RCRA Hazardous Waste Number: U002, U057, U159, U213

EPA Hazardous Waste ID Number: D001, D035, F003, F005

EPA Hazard Waste Class: Ignitable Waste. Toxic Waste (Methyl Ethyl Ketone content)

**SECTION 14 TRANSPORT INFORMATION**

DOT Less than 1 Liter (0.3 gal) Greater than 1 Liter (0.3 gal)  
Proper Shipping Name: Consumer Commodity Flammable Liquid NOS  
Hazard Class/Packing Group: ORM-D 3, PGII  
UN/NA Number: None UN1993  
Hazard Labels: None Flammable Liquid (Methyl Ethyl Ketone, Cyclohexanone)

IMDG  
Proper Shipping Name: Flammable Liquid, N.O.S. Limited Quantity  
Hazard Class/Packing Group: 3, II  
UN Number: UN1133  
Label: None (Limited Quantities are excepted from labeling)

2004 North American Emergency Response Guidebook Number: 127 or 128

**SECTION 15 REGULATORY INFORMATION**

Hazard Category for Section 311/312: Acute Health, Chronic Health, Flammable

Section 302 Extremely Hazardous Substances (TPQ): This product does not contain chemicals regulated under SARA Section 302.  
Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

<u>Chemical</u>	<u>CAS #</u>	<u>% by wt.</u>
Methyl Ethyl Ketone	78-93-3	25 - 80%

CERCLA 103 Reportable Quantity: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product, based on the RQ for Tetrahydrofuran (30% maximum) of 1,000 lbs, is 3,333 lbs. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product does not contain any chemicals subject To California Proposition 65 regulation.

TSCA Inventory: All of the components of this product are listed on the TSCA inventory.

Canadian WHIMS Classification: Class B, Division 2; Class D, Division 2, Subdivision B. Class D, Division 2, Subdivision A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**SECTION 16 OTHER INFORMATION**

NFPA and HMIS

NFPA Hazard Signal: Health: 2 Flammability: 3 Reactivity: 1 Special: None  
HMIS Hazard Signal: Health: 2\* Flammability: 3 Reactivity: 1 PPE: G

Section 16 (Continued)

Part #s covered by this MSDS:

00449	019057-24	019078-12	019160	019550
018255	019058	019079-12	019161	019551
018256	019059	019080-12	019162	019552
018974	019060-24	019081-12	019171	019700
019002	019060-48D	019082-12	019172	019701
019003	019061-24	019083-12	019173	019702
019026	019062-24	019084	019187	019703
019038	019063-24	019085-12	019188	019706
019041	019064-24	019086-12	019190	019707
019042-12	019065-24	019087-12	019200-24	019710
019043-12	019066-24	019088	019201-12	019711
019044-24	019067	019089-12	019202-12	019714
019045-12	019067-24	019090	019203	019715
019046-12	019068	019091-12	019204	019716
019048-12	019069-24	019092-12	019205	019717
019049-12	019070-12	019093-12	019500	019980
019050-24	019070-24D	019094-12	019501	019981
019050-48D	019071	019095-12	019502	019995
019050-6	019072-12	019096-12	019505	019996
019051-24	019073	019097-12	019510	019997
019052-24	019073-12	019098-12	019511	019998
019053-24	019074-12	019099-12	019530	
019054-24	019075-12	019155	019531	
019055-24	019076-12	019156	019532	
019056	019077-12	019157	019540	

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