

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administrator
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (AS USED ON LABEL AND LIST) CLEAR CLEANER C	NOTE: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
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Section I

Manufacturer's Name: J.C. WHITLAM MANUFACTURING COMPANY	Emergency Telephone Number: CHEM-TEL (800) 255 - 3924
Address (Number, Street, City, State, and ZIP Code): 200 WEST WALNUT STREET	Telephone Number for Information: (330) 334 - 2524
P.O. BOX 380	Date Prepared: 1 JANUARY 1997
WADSWORTH, OHIO 44282-0380	Signature of Preparer (optional):

Section II - Hazardous Ingredients/Identity Information

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL IDENTITY: COMMON NAME (S))	OSHA PEL	ACGIH TLV	OTHER LIMITS Recommended	% (optional)
METHYL ETHYL KETONE [CAS #78-93-3]	200 ppm	200 ppm	N/A	100
SHIPPING INFORMATION FOR: 1/4 PINT, 1/2 PINT, PINT AND QUART CONTAINERS: DEPARTMENT OF TRANSPORTATION (DOT): ADHESIVES ORM-D				
SHIPPING INFORMATION FOR GALLON CONTAINERS AND ALL FOREIGN SHIPMENTS: ADHESIVES 3,UN1133,PGII				

Section III - Physical/Chemical Characteristics

Boiling Point:	147.0°F (63.8°C)	Specific Gravity (H2O =1):	0.8
Vapor Pressure (mm Hg):	20.0 @ 68.0°F (20.0°C)	Melting Point:	N/A
Vapor Density (AIR = 1):	3.5	Evaporation Rate (Butyl Acetate = 1):	5.6

Solubility in Water: 26.30 @ 68°F

Appearance and Odor: CLEAR LIQUID - ETHERAL LIKE ODOR

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used): 1°F (-17.2°C)	Flammable Limits:	LEL: 1.1 %	UEL: 11.5 %
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Extinguishing Media: DRY CHEMICAL, CARBON DIOXIDE, WATER FOG, FOAM OR ALCOHOL FOAM.

Special Fire Fighting Procedures: USE SPRAY NOZZLE DISCHARGE TO ASSIST IN CONTROLLING FIRE. WEAR SELF-CONTAINED BREATHING APPARATUS (SCBA). DO NOT USE WATER ON FIRE! WATER MAY BE USED TO COOL NEARBY CONTAINERS.

Unusual Fire and Explosion Hazards: VAPOR IS HEAVIER THAN AIR AND CAN TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASHBACK. MATERIAL CAUSES SPECIAL HAZARD BECAUSE IT FLOATS ON WATER.

Section V - Reactivity Data

CLEAR CLEANER: C

Stability:	Unstable:		Conditions to Avoid:
	Stable:	X	HEAT, SPARKS, AND FLAME.

Incompatibility (Materials to Avoid):

CAUSTIC SODA AND OTHER STRONG ALKALIS, STRONG INORGANIC ACIDS, AMINES, OXIDIZING AGENTS.

Hazardous Decomposition or Byproducts:

Hazardous Polymerization	May Occur:		Conditions to Avoid:
	Will not Occur:	X	

Section VI - Health Hazard Data

Route (s) of Entry:	Inhalation? YES	Skin? YES	Ingestion? YES
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Health Hazards (Acute and Chronic):

ACUTE: INHALATION OF HIGH CONCENTRATIONS MAY CAUSE LOSS OF CONSCIOUSNESS AND MAY ENDANGER HEALTH OR LIFE. EYE CONTACT MAY CAUSE BURNS. CHRONIC: PROLONGED OR REPEATED CONCENTRATION MAY RESULT IN CENTRAL NERVOUS SYSTEM DEPRESSION AND NARCOSIS.

Carcinogenicity: NTP? NO IARC Monographs? NO OSHA Regulated? NO

Signs and Symptoms of Exposure: EYES: REDNESS, IRRITATION. SKIN: REDDING AND SWELLING, DERMATITIS. INGESTION: GASTROINTESTINAL IRRITATION. INHALATION: IRRITATION OF NASAL PASSAGES AND THROAT. CAUSES STUPOR.

Medical Conditions

Generally Aggravated by Exposure: RESPIRATORY DISEASES, DERMATITIS, LIVER RELATED DISEASES OR CONDITIONS. CENTRAL NERVOUS SYSTEM RELATED.

Emergency and First Aid Procedures:

INGESTION: DO NOT INDUCE VOMITING. CONTACT A PHYSICIAN IMMEDIATELY. INHALATION: MOVE TO FRESH AIR. GIVE OXYGEN IF NEEDED. EYE CONTACT: FLUSH EYES FOR 15 MINUTES. SKIN: WASH WITH SOAP AND WATER. CONTACT A PHYSICIAN IF NEEDED.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled:

ELIMINATE IGNITION SOURCES.. AVOID EYE OR SKIN CONTACT. PLACE LEAKING CONTAINERS IN WELL VENTILATED AREA. IF FIRE POTENTIAL EXISTS, BLANKET WITH FOAM. CONTAIN SPILL. FOLLOW ALL APPLICABLE SAFETY AND REGULATORY PROCEDURES.

Waste Disposal Method:

THIS PRODUCT WHEN SPILLED OR DISPOSED, IS A HAZARDOUS SOLID WASTE AS DEFINED IN RCRA REGULATIONS (40CFR261). PREFERRED METHOD IS INCINERATION OR BIOLOGICAL TREATMENT IN FEDERAL/STATE APPROVED FACILITY. FOLLOW APPLICABLE REGULATIONS.

Precautions to Be Taken in Handling and Storing:

STORE IN A COOL, WELL VENTILATED AREA. KEEP AWAY FROM HEAT, SPARKS, AND FLAME. KEEP CONTAINERS CLOSED. USE SPARK RESISTANT TOOLS. USE ADEQUATE VENTILATION. AVOID BREATHING VAPORS. AVOID CONTACT WITH EYES, SKIN, CLOTHING. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING.

Other Precautions:

WASH CONTAMINATED CLOTHING THOROUGHLY BEFORE RE-USE.

Section VIII - Control Measures

Respiratory Protection (Specify Type)

NIOSH APPROVED ORGANIC VAPOR CARTRIDGE OR CANNISTER RESPIRATOR OR PROVIDE NORMAL VENTILATION.

Ventilation	Local Exhaust: RECOMMENDED TO CONTROL EXPOSURE.	Special: N/A
	Mechanical (General): NOT RECOMMENDED AS SOLE MEANS.	Other: MECHANICAL MUST BE EXPLOSION PROOF.

Protective Gloves: PVA GLOVES.	Eye Protection: CHEMICAL OR SAFETY GOGGLES.
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Other Protective Clothing or Equipment:

IMPERVIOUS BODY COVERING AND BOOTS IN AREAS WHERE SPILLS AND SPLASHING CAN OCCUR.

Work/Hygienic Practices: WASH HANDS BEFORE EATING OR USING TOILET FACILITIES.

RECEIVED

JUN 04 1998

RAUJOUR ELECTRIC INC.
BY: *JD*

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administrator
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (AS USED ON LABEL AND LIST) PURPLE PRIMER CLEANER	PP	NOTE: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
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Section I

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METHYL ETHYL KETONE [CAS #78-93-3]	200 ppm	200 ppm	N/A	
TETRAHYDROFURAN [CAS #109-99-9]	200 ppm	200 ppm	N/A	
SHIPPING INFORMATION FOR: 1/4 PINT, 1/2 PINT, PINT AND QUART CONTAINERS: DEPARTMENT OF TRANSPORTATION (DOT): ADHESIVES ORM-D				
SHIPPING INFORMATION FOR GALLON CONTAINERS AND ALL FOREIGN SHIPMENTS: ADHESIVES 3, UN1133, PGII				

Section III - Physical/Chemical Characteristics

Boiling Point:	153°F (67°C)	Specific Gravity (H2O = 1):	0.8
Vapor Pressure (mm Hg):	20.0 @ 68.0°F (20.0°C)	Melting Point:	N/A
Vapor Density (AIR = 1):	3.5	Evaporation Rate (Butyl Acetate = 1):	6.1

Solubility in Water: 100%

Appearance and Odor: PURPLE LIQUID - ETHERAL AND ACETONE LIKE ODOR

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used): 1°F (-17.2°C)	Flammable Limits:	LEL: 1.1 %	UEL: 11.5 %
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Extinguishing Media: DRY CHEMICAL, CARBON DIOXIDE, WATER FOG, FOAM OR ALCOHOL FOAM.

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Unusual Fire and Explosion Hazards: VAPOR IS HEAVIER THAN AIR AND CAN TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASHBACK. MATERIAL CAUSES SPECIAL HAZARD BECAUSE IT FLOATS ON WATER.

Section V - Reactivity Data

PURPLE PRIMER CLEANER: PP

Stability:	Unstable:		Conditions to Avoid:
	Stable:	X	HEAT, SPARKS, AND FLAME.

Incompatibility (Materials to Avoid):

CAUSTIC SODA AND OTHER STRONG ALKALIS. STRONG INORGANIC ACIDS. AMINES. OXIDIZING AGENTS.

Hazardous Decomposition or Byproducts:

Hazardous	May Occur:		Conditions to Avoid:
	Polymerization	Will not Occur:	X N/A

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? YES	Skin? YES	Ingestion? YES
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Health Hazards (Acute and Chronic):

ACUTE: INHALATION OF HIGH CONCENTRATIONS MAY CAUSE LOSS OF CONSCIOUSNESS AND MAY ENDANGER HEALTH OR LIFE. EYE CONTACT MAY CAUSE BURNS. CHRONIC: PROLONGED OR REPEATED CONCENTRATION MAY RESULT IN CENTRAL NERVOUS SYSTEM DEPRESSION AND NARCOSIS.

Carcinogenicity:	NTP? NO	IARC Monographs? NO	OSHA Regulated? NO
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Signs and Symptoms of Exposure: EYES: REDNESS, IRRITATION. SKIN: REDDING AND SWELLING, DERMATITIS. INGESTION: GASTROINTESTINAL IRRITATION. INHALATION: IRRITATION OF NASAL PASSAGES AND THROAT. CAUSES STUPOR.

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INGESTION: DO NOT INDUCE VOMITING. CONTACT A PHYSICIAN IMMEDIATELY. INHALATION: MOVE TO FRESH AIR. GIVE OXYGEN IF NEEDED. EYE CONTACT: FLUSH EYES FOR 15 MINUTES. SKIN: WASH WITH SOAP AND WATER. CONTACT A PHYSICIAN IF NEEDED.

Section VII - Precautions for Safe Handling and Use

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Waste Disposal Method:

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Other Precautions:

WASH CONTAMINATED CLOTHING THOROUGHLY BEFORE REUSE.

Section VIII - Control Measures

Respiratory Protection (Specify Type)

NIOSH APPROVED ORGANIC VAPOR CARTRIDGE OR CANISTER RESPIRATOR OR PROVIDE NORMAL VENTILATION.

Ventilation	Local Exhaust: RECOMMENDED TO CONTROL EXPOSURE.	Special: N/A
	Mechanical (General): NOT RECOMMENDED AS SOLE MEANS.	Other: MECHANICAL MUST BE EXPLOSION PROOF.

Protective Gloves: PVA GLOVES.	Eye Protection: CHEMICAL OR SAFETY GOGGLES.
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Other Protective Clothing or Equipment:

IMPERVIOUS BODY COVERING AND BOOTS IN AREAS WHERE SPILLS AND SPLASHING CAN OCCUR.

Work/Hygienic Practices: WASH HANDS BEFORE EATING OR USING TOILET FACILITIES.

RECEIVED

JUN 04 1998

RAI MORSE ELECTRIC INC.
BY: *SL*

MATERIAL SAFETY DATA SHEET



4700 W. 160TH Street
P.O. Box 35906
Cleveland, Ohio 44135
Emergency Tel No.
(303) 623-5716 Collect

OATEY PURPLE PRIMER/CLEANER

Test Revision Date...05/28/97

Date of Issue.....06/04/98

Section 1

IDENTITY OF MATERIAL

TRADE NAME.....OATEY PURPLE PRIMER/CLEANER
PRODUCT NUMBERS... 30768, 30780, 30783, 30796, 30806
FORMULA..... CH(3)CO(2)H(5)+CH(2)CH(2)CH(2)O+CH(3)CO
SYNONYMS..... Methyl Ethyl Ketone, Tetrahydrofuran, Cyclohexanone, Acetone

SECTION 2

HAZARDOUS INGREDIENTS

INGREDIENTS	%	CAS NUMBER	SEC 313
Methyl Ethyl Ketone	13-17%	78-93-3	Yes
Acetone	70-80%	67-64-1	No
Cyclohexanone	5-10%	108-94-1	No
Tetrahydrofuran (See SECTION 6)	1- 5%	109-99-9	No
Violet Dye	<1%	81-48-1	No
Red Dye	<1%	4477-79-6	No

SECTION 3

KNOWN HAZARDS UNDER 29 CFR 1910.1200

HAZARDS	YES	NO	HAZARDS	YES	NO
Combustible Liquid		x	Skin Hazard	x	
Flammable Liquid	x		Eye Hazard	x	
Pyrophoric Material		x	Toxic Agent	x	
Explosive Material		x	Highly Toxic Agent		x
Unstable Material		x	Sensitizer		x
Water Reactive Material		x	Kidney Toxin		x
Oxidizer		x	Reproductive Toxin	x	
Organic Peroxide		x	Blood Toxin		x
Corrosive Material		x	Nervous System Toxin	x	
Compressed Gas		x	Lung Toxin	x	
Irritant	x		Liver Toxin		x
Carcinogen NTP/IARC/OSHA (see SECTION 6)		x			

SECTION 4

REGULATION

CHEMICAL	TLV (TWA)	PEL (Transitional Limits)	STEL	Hazard Action Level
Methyl Ethyl Ketone	200 ppm, 590 mg/cu m	200 ppm, 590 mg/cu m	300 ppm, 885 mg/cu m	N/A
Acetone	750 ppm, 1800 mg/cu m	1000 ppm, 2400 mg/cu m	1000 ppm, 2400 mg/cu m	N/A
Cyclohexanone	25 ppm, 100 mg/cu m (skin)	50 ppm, 200 mg/cu m	100 ppm, 400 mg/cu m	N/A
Tetrahydrofuran	200 ppm, 590 mg/cu m	200 ppm, 590 mg/cu m	250 ppm, 735 mg/cu m	N/A

SECTION 5

REGULATED IDENTIFICATION

DOT PROPER SHIPPING NAME..... CONSUMER COMMODITY ORM-D (For gallons: Flammable Liquid N.O.S., Methyl Ethyl Ketone, Acetone) 3, UN1993, PG II, Cleaner/Primer-005
DOT HAZARD CLASS..... Flammable Liquid
SHIPPING ID NUMBER..... 149980-2 (Gallons Only)
EPA HAZARDOUS WASTE ID NUMBER... U-213 & F-005
EPA HAZARD WASTE CLASS..... Ignitable Waste/Toxic Waste

SECTION 6

EFFECTS OF EXPOSURE

ENTRY ROUTE..... INHALE - YES INGEST - YES SKIN - YES EYE - YES
INHALATION..... May cause irritation of mucous membranes, nose & throat, headache, dizziness, nausea, numbness of the extremities and narcosis in high concentrations. Has caused CNS depression & liver damage in animals, and concentrations of 1000-3000 ppm caused retardation of fetal development in rats.
TETRAHYDROFURAN The National Toxicology program has reported that exposure of mice and rats to Tetrahydrofuran (THF) vapor WARNING 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. THF is not listed as a carcinogen by NTP, IARC, or OSHA. One THF vendor has recommended a reduction in the "acceptable exposure limit" from 200 ppm to 25 ppm, 8 and 12 hour time weighted average.
SKIN..... Chronic contact or chronic exposure to vapors of high concentration may cause irritation & dermatitis. May possibly be absorbed through the skin.
EYE..... Vapors or direct contact may irritate.
INGESTION..... May be aspirated into the lungs or cause systemic effects as with inhalation.
TARGET ORGANS... Eye, Skin, Lung, Central Nervous System

(Continued on next page)

OATEY PURPLE PRIMER/CLEANER

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SECTION 7 EMERGENCY AND FIRST AID PROCEDURES - 303/623-5716 COLLECT
=====

SKIN..... If irritation arises, wash thoroughly with soap and water. Seek medical attention if irritation persists.
EYES..... If fumes cause irritation, move to fresh air and irrigate eyes with water for 15 minutes. If irritation persists, seek medical attention.
 LATION... Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Call a poison control center or physician immediately.
INGESTION... Drink water and call a poison control center or physician immediately. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

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SECTION 8 PHYSICAL AND CHEMICAL PROPERTIES
=====

NFPA HAZARD SIGNAL..... HEALTH 2 STABILITY 1 FLAMMABILITY 3 SPECIAL NONE
BOILING POINT..... 133 Degrees F / 56 C
MELTING POINT..... N/A
VAPOR PRESSURE..... 70 mmHg @ 20 Degrees C
VAPOR DENSITY (AIR = 1)... 2.0
VOLATILE COMPONENTS..... 100%
SOLUBILITY IN WATER..... 28 parts
PH..... N/A
SPECIFIC GRAVITY..... 0.79
EVAPORATION RATE..... (BUAC = 1) = 6.0 - 8.0
APPEARANCE..... Purple Liquid
ODOR..... Sharp, penetrating odor.
WILL DISSOLVE IN..... Water, organic solvents
MATERIAL IS..... Liquid

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SECTION 9 FIRE AND EXPLOSION HAZARD DATA
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FLAMMABILITY..... LEL =2.0 % Volume UEL= 13.0 % Volume
FLASHPOINT AND METHOD USED..... 0 - 5 Degrees F. / PMCC
STABILITY..... Stable CONDITIONS TO AVOID: Heat, sparks and open flame. HAZARDOUS DECOMP. PDTS.: Carbon monoxide/ carbon dioxide/hydrogen chloride/smoke.
HAZARDOUS POLYMERIZATION..... Will Not Occur. CONDITIONS TO AVOID: none
INCOMPATIBILITY/MAT. TO AVOID..... Acids, oxidizing materials, alkalis, chlorinated inorganics (potassium, calcium and sodium hypochlorite), copper or copper alloys.
SPECIAL FIRE FIGHTING PROCEDURE... FOR SMALL FIRES: Use dry chemical, CO2, water or foam extinguisher. FOR LARGE FIRES: Evacuate area and call Fire Department immediately.

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SECTION 10 SPILL AND DISPOSAL INFORMATION
=====

SPILL OR LEAK PROCEDURES... Ventilate area, stop leak if it can be done without risk. Take up with sand, earth, or other non-combustible absorbant.
WASTE DISPOSAL..... Dispose of according to local, state, and Federal regulations.

=====
SECTION 11 SAFE USAGE DATA
=====

PROTECTIVE EQUIPMENT TYPES... EYES: Safety Glasses with side shields. RESPIRATORY: NIOSH-Approved cannister respirator in absence of adequate ventilation. GLOVES: Rubber Gloves OTHER: Eye wash and safety shower should be available.
VENTILATION..... GENERAL MECHANICAL: Exhaust ventilation capable of maintaining emissions at the point of use below PEL. LOCAL EXHAUST: Open doors & windows. If used in enclosed area, use exhaust fans.
PRECAUTIONS..... HANDLING & STORAGE: Keep away from heat, sparks and flames; store in cool, dry place. OTHER: Containers, even empties will retain residue and vapors.

=====
SECTION 12 MANUFACTURER OR SUPPLIER DATA
=====

FIRM NAME & MAILING ADDRESS... OATEY CO., 4700 W. 160th Street, P.O. Box 35906 Cleveland, Ohio 44135
OATEY PHONE NUMBER..... (216) 267-7100
EMERGENCY PHONE NUMBER..... For Emergency First Aid call (303) 623-5716 COLLECT For chemical transportation emergencies ONLY, call Chemtrec at 1-800-424-9300

=====
SECTION 13 DISCLAIMER
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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, Oatey cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.

RESERVED
JUN 06 1998
RAUNOR BLASTING CO.
BY 810



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-1-BUY-ZEP (428-9937)

Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name ZEP ORANGE GEL DEGREASER
Product Use Industrial Degreaser
Product Code 7111
Date of issue 11/04/04 **Supersedes** 01/21/00

Emergency Telephone Numbers For MSDS Information:
 Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-1-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

00689 B343
 RAUTHORN ELECTRIC
 17171 23 MILE RD
 MACOMB MI 48042

Printing date: 10/21/05

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
D-LIMONENE - orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-	5989-27-5	80-90	Not available.

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Dermal contact.
Skin Hazardous in case of skin contact (irritant, sensitizer). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May cause allergic reactions to certain individuals.
Eyes Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.
Inhalation Hazardous in case of inhalation. Over-exposure by inhalation may cause respiratory irritation.
Ingestion Aspiration hazard if swallowed- can enter lungs and cause damage.

HMIS	
Health	1
Physical Hazard	2
Reactivity	0
Personal Protection	B

Carcinogenic Effects Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.
Chronic Effects Prolonged or repeated contact may dry skin and cause irritation.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation develops.
Skin Contact In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops.
Inhalation If inhaled, remove to fresh air. If irritation persists, get medical attention.
Ingestion Aspiration hazard if swallowed- can enter lungs and cause damage. Do NOT induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head lower than hips to help prevent aspiration. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point Closed cup: 50°C (122°F). **Flammable Limits** Not determined.
Flammability Combustible.
Fire Hazard Cool closed containers exposed to fire with water.
Fire-Fighting Procedures Dry chemical, carbon dioxide, foam, water fog. Wear special protective clothing and positive pressure, self-contained breathing apparatus.



Section 6. Accidental Release Measures

Spill Clean up Eliminate all ignition sources. Put on appropriate personal protective equipment (see Section 8). Absorb with an inert material and put the spilled material in an appropriate waste disposal. To clean the floor and all objects contaminated by this material, use detergent. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Section 7. Handling and Storage

Handling Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Wash contaminated clothing before reusing.

Storage Store and use away from heat, sparks, open flame, or any other ignition source. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed and dry. Store between 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Safety glasses.



Body Neoprene, Nitrile, or Rubber gloves.

Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Section 9. Physical and Chemical Properties

Physical State Viscous liquid.

Color Orange. Hazy liquid.

pH Not applicable

Odor Citrus

Boiling Point Not determined.

Vapor Pressure 0.3 kPa (2 mmHg) (at 20°C)

Specific Gravity 0.86 (Water = 1)

Vapor Density Not determined.

Solubility Emulsifies in water.

Evaporation Rate <1 compared to Water
VOC (Consumer) 89.4% 6.4 lbs/gal

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Avoid contact with strong oxidizers, excessive heat, sparks or open flame.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products carbon oxides (CO, CO₂) nitrogen oxides (NO, NO₂...)

Section 11. Toxicological Information

Toxicity to Animals

d-Limonene:

ORAL (LD50): Acute: 5600 mg/kg [Mouse]. 4400 mg/kg [Rat].

DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].

Section 12. Ecological Information

Ecotoxicity Not available.

Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Waste Stream Code: D001

Classification: - (Hazardous waste.)

Origin: - (RCRA waste.)

Consult your local or regional authorities.

Section 14. Transport Information

Proper shipping name None.

DOT Classification Not a DOT controlled material (United States).

UN number Not regulated.

Section 15. Regulatory Information

U.S. Federal Regulations SARA 313 toxic chemical notification and release reporting:
No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

NOV 05 2005

BAUNTECH ELECTRIC INC.
NY



ZEP Manufacturing Company
 Acuity Specialty Products Group, Inc.
 P.O. Box 2015
 Atlanta, GA 30301
 1-877-I-BUY-ZEP (428-9937)
 www.zep.com

Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name FORMULA 50
Product Use General Purpose Cleaner
Product Code 0859
Date of issue 04/14/03 **Supersedes** 03/26/01

Emergency For MSDS Information:
Telephone Numbers Acuity Specialty Products Group, Inc.
 Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
 INFOTRAC:
 (877) 541-2016 Toll Free - All Calls Recorded

For a Transportation Emergency
 CHEMTREC:
 (800) 424-9300 - All Calls Recorded
 In the District of Columbia (202) 483-7616

Printing date: 04/13/06

Prepared by Compliance Services Group
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 Atlanta, GA 30318

Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	1-5	ACGIH TLV (United States). Skin TWA: 20 ppm Form: Vapor OSHA PEL (United States). Skin TWA: 25 ppm Form: Vapor
SODIUM METASILICATE; silicic acid (H2-Si-O3) disodium salt; water glass	6834-92-0	1-5	OSHA (United States). : 2 mg/m ³ Form: Dust
SODIUM DODECYLBENZENE SULFONATE; linear alkyl aryl sodium sulfonate; Sodium DDBSA	25155-30-0	1-5	Not available.

Section 3. Hazards Identification

Acute Effects

Routes of Entry Dermal contact. Eye contact. Inhalation.
 Ingestion.

Skin Slightly hazardous in case of skin contact (irritant). Non-sensitizer for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eyes Hazardous in case of eye contact (irritant). Liquid in eye may cause irritation with possible damage if not rinsed immediately.

Inhalation Hazardous in case of inhalation. May cause respiratory tract irritation. Medical Conditions Aggravated by Overexposure: Respiratory

Ingestion Not considered to be toxic for humans. However, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum.

HMIS

Health	2
Physical Hazard	0
Reactivity	0
Personal Protection	B

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse health effects are lessened by following all prescribed safety precautions, including use of proper personal protective equipment.

Carcinogenic Effects

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Chronic Effects

The substance may be toxic to blood, kidneys, liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact In case of contact, immediately flush skin with plenty of water. If irritation persists, seek medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

Section 5. Fire Fighting Measures

Flash Point Not applicable. **Flammable Limits** Not applicable.
Flammability Aqueous solutions are non-flammable.
Fire Hazard Not applicable.
Fire-Fighting Procedures Wear special protective clothing and positive pressure, self-contained breathing apparatus.

**Section 6. Accidental Release Measures**

Spill Clean up Put on appropriate personal protective equipment (see Section 8). Absorb with an inert material and place in an appropriate waste disposal container. To clean the floor and all objects contaminated by this material, use detergent. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Section 7. Handling and Storage

Handling Avoid breathing vapors or spray mists. Avoid contact with eyes. Wash thoroughly after handling.
Storage Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection**Personal Protection****Protective Clothing (Pictograms)**

Eyes Splash goggles.
Body For prolonged or repeated handling, use gloves. (Neoprene gloves. Nitrile gloves.) Chemical resistant apron.
Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Wear appropriate respirator when ventilation is inadequate. Approved/certified respirator with organic vapor cartridges.

**Section 9. Physical and Chemical Properties**

Physical State	Liquid.	Color	Blue. (Dark.)
pH	12.7 - 13.3	Odor	Slight.
Boiling Point	104.4°C (219.9°F)	Vapor Pressure	N/A
Specific Gravity	1.07 (Water = 1)	Vapor Density	Not available.
Solubility	Easily soluble in cold water.	Evaporation Rate	1 compared to water
		VOC (Consumer)	3.96% 0.35 (lbs/gal) 42.3 (g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.
Incompatibility Reactive with oxidizing agents, acids.
Hazardous Polymerization Will not occur.
Hazardous Decomposition Products Carbon Dioxide, Carbon Monoxide and other organic materials.

Section 11. Toxicological Information

Toxicity to Animals **Ethylene Glycol Monobutyl Ether:**
 ORAL (LD50): Acute: 1746 mg/kg [Rat].
 DERMAL (LD50): Acute: 680 mg/kg [Rabbit].
 VAPOR (LC50): Acute: 450 ppm 4 hour(s) [Rat (Female)].
Sodium Metasilicate:
 ORAL (LD50): Acute: 1153 mg/kg [Rat]. 770 mg/kg [Mouse].
Sodium Dodecylbenzene Sulfonate:
 ORAL (LD50): Acute: 1260 mg/kg [Rat]. 2000 mg/kg [Mouse].

Section 12. Ecological Information

Ecotoxicity Not available.
Biodegradable/OECD Not available.

Section 13. Disposal Considerations

Waste Information Waste must be disposed of in accordance with federal, state and local environmental control regulations. **Waste Stream** Code: D002
 Classification: Hazardous Waste (Corrosive)
 Origin: RCRA

Consult your local or regional authorities.

Section 14. Transport Information**Proper shipping name** Not applicable.**DOT Classification** Not a DOT controlled material (United States).**UN number** Not regulated.

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

Ethylene Glycol Monobutyl Ether (Glycol Ethers)

Clean Water Act (CWA) 311: Sodium Dodecylbenzene Sulfonate. RQ 5000 lbs. (2268 kg)

Clean air act (CAA) 112 regulated toxic substances: Ethylene Glycol Monoethyl Ether (Glycol Ethers)

All Components of this product are listed or exempt from listing on TSCA inventory.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.