

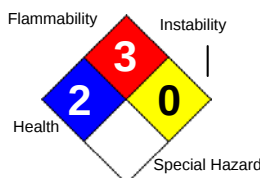
MATERIAL SAFETY DATA SHEET

BRUSH CLEANER

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Printed: 01/09/2014
Revision: 02/07/2012
Supersedes Revision: 11/13/2008

1. Product and Company Identification

Product Code: 805.16

Product Name: BRUSH CLEANER

Manufacturer Information

Company Name: W. M. Barr
2105 Channel Avenue
Memphis, TN 38113

Phone Number: (901)775-0100

Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346

Information: W.M. Barr Customer Service (800)398-3892

Web site address: www.wmbarr.com

Preparer Name: W.M. Barr EHS Dept (901)775-0100

Synonyms

QBC12, QBC12L, GBC12, GBC12L, QBW434, QBC12W

Revision Date: 02/07/2012

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA TWA	ACGIH TWA	Other Limits
1. N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	872-50-4	1.0 -10.0 %	No data.	No data.	No data.
2. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	1.0 -3.0 %	25 ppm	50 ppm	No data.
3. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	5.0 -35.0 %	200 ppm	200 ppm	No data.
4. Toluene {Benzene, Methyl-; Toluol}	108-88-3	1.0 -10.0 %	200 ppm	50 ppm	No data.
5. Tall oil acids	61790-12-3	1.0 -5.0 %	No data.	No data.	No data.
6. Potassium hydroxide {Caustic potash}	1310-58-3	1.0 -5.0 %	100 ppm	5 ppm	No data.
7. Ethanol, 2-Amino- {Ethanamine; Monoethanamine; beta-Aminoethyl alcohol}	141-43-5	1.0 -5.0 %	3 ppm	3 ppm	No data.
8. Raffinates (petroleum), sorption process	64741-85-1	20.0 -80.0 %	No data.	No data.	No data.
9. Acetone {2-Propanone}	67-64-1	15.0 -30.0 %	1000 ppm	500 ppm	No data.
Hazardous Components (Chemical Name)	CAS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	872-50-4	No data.	No data.	No data.	No data.
2. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	125 ppm (15 min)	No data.	No data.	No data.
3. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	No data.	No data.	250 ppm	No data.
4. Toluene {Benzene, Methyl-; Toluol}	108-88-3	500 ppm/(10min)	300 ppm	No data.	No data.
5. Tall oil acids	61790-12-3	No data.	No data.	No data.	No data.
6. Potassium hydroxide {Caustic potash}	1310-58-3	No data.	No data.	No data.	2 mg/m3
7. Ethanol, 2-Amino- {Ethanamine; Monoethanamine; beta-Aminoethyl alcohol}	141-43-5	No data.	No data.	6 ppm	No data.

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Hazardous Components (Chemical Name)	CAS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
8. Raffinates (petroleum), sorption process	64741-85-1	No data.	No data.	No data.	No data.
9. Acetone {2-Propanone}	67-64-1	No data.	No data.	750 ppm	No data.

3. Hazards Identification

Emergency Overview

Danger! Extremely flammable. Keep away from heat, sparks, flame and all other sources of ignition. Vapors may cause flash fire or ignite explosively. Vapors may travel long distances to other areas and rooms away from work site. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition anywhere in the structure, dwelling or building during use and until all vapors are gone from the work site and all areas away from the work site. Keep away from electrical outlets and switches. Beware of static electricity that may be generated by synthetic clothing and other sources.

Potential Health Effects (Acute and Chronic)

Inhalation Acute Exposure Effects:

Vapor harmful. May cause dizziness, headache, irritation of the respiratory tract, injuries to mucous membranes, watering of eyes, weakness, drowsiness, nausea, loss of coordination, numbness in fingers and arms and legs, depression of central nervous system, loss of appetite, blurred vision, fatigue, stupor, vomiting, stomach and intestinal pain, heartburn, confusion, brain damage, lower blood pressure, liver and kidney injury, hallucinations, irregular heartbeat, cold clammy extremities, diarrhea, blood disorders, spotted vision, dilation of pupils, visual disturbances, giddiness and intoxication, sleepiness, cough and dyspnea, nose tumors, hot flashes, arm leg and chest pain, rapid heartbeat, increase in carboxyhemoglobin levels which can cause stress to the cardiovascular system, convulsions, unconsciousness, coma, and death.

Elevated carboxyhemoglobin levels can be additive to the increase caused by smoking and other carbon monoxide sources.

Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal. May produce symptoms similar to those listed under ingestion.

Skin Contact Acute Exposure Effects:

This product may be absorbed through the skin. Harmful if absorbed through skin. May cause irritation, drying and cracking of skin, defatting of skin, dermatitis, itching, burning, redness, inflammation, swelling, tissue damage, keratitis, discomfort or pain, erythema, numbness in fingers and arms. May be absorbed readily to produce symptoms similar to those listed for ingestion. Prolonged or widespread contact may result in absorption of potentially harmful amounts of this material. May cause additional symptoms listed under inhalation.

Eye Contact Acute Exposure Effects:

This material is an eye irritant. May cause irritation and injury, redness, tearing, blurred vision, burns, conjunctivitis of eyes, corneal ulcerations of the eye. If not promptly removed, it will injure eye tissue, which may result in permanent damage.

Ingestion Acute Exposure Effects:

May be fatal or cause blindness if swallowed. May cause dizziness, headache, drowsiness, nausea, weakness, stupor, irritation to mouth throat and stomach, depression of the central nervous system, vomiting, muscle twitches, gastrointestinal irritation, diarrhea, loss of appetite, narcosis, red blood cell hemolysis, mental confusion, slurred speech, changes in white blood cells, fatigue, blindness, liver damage, kidney damage, heart damage, unconsciousness, convulsions, coma, and death.

May produce additional symptoms listed under inhalation. Liquid aspirated into lungs can cause chemical pneumonitis or pulmonary edema, which can be fatal.

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Chronic Exposure Effects:

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged skin contact may result in absorption of a harmful amount of this material. Prolonged or repeated contact may cause dermatitis. May cause weakness, skin irritation, nausea, numbness in hands and feet, permanent central nervous system changes, some loss of memory, gastric disturbances, giddiness, insomnia, brain damage, bone marrow damage, liver damage, kidney damage, hallucinations, blood disorders, irregular heartbeat, jaundice, anemia, inflammation, redness, eye irritation, pancreatic damage, visual impairment or blindness.

Prolonged or repeated contact may cause drying and cracking of skin. Repeated overexposure may cause red blood cell hemolysis.

Signs and Symptoms Of Exposure

Primary routes of exposure: Inhalation, ingestion, and dermal.

Medical Conditions Generally Aggravated By Exposure

Diseases of the skin, eyes, liver, kidneys, lungs, cardiovascular system, respiratory system, asthma, blood, inflammatory or fibrotic pulmonary disease, alcoholism, and rhythm disorders of the heart.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

4. First Aid Measures

Emergency and First Aid Procedures

Inhalation:

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

Skin Contact:

Irritation may result. Immediately wash with soap and water. Seek medical attention if irritation from contact persists.

Eye Contact:

Immediately flush with water, remove any contact lenses, continue flushing with water for at least 15 minutes, then get medical attention.

Ingestion:

Call you local poison control center, hospital emergency room, or physician immediately for instructions.

Note to Physician

Poison. This product contains methylene chloride and methanol.

This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. Adrenalin should never be given to a person overexposed to methylene chloride.

Methylene Chloride is an aspiration hazard. Risk of aspiration must be weighed against possible toxicity of the material when determining whether to induce emesis or to perform gastric lavage. This material sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. This material is metabolized to carbon monoxide.

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Consequently, elevations in carboxyhemoglobin as high as 50% have been reported, and levels may continue to rise for several hours after exposure has ceased. Data in experimental animals suggest there is a narrow margin between concentrations causing anesthesia and death.

5. Fire Fighting Measures

Flammability Classification:

OSHA Class IB

Flash Pt:

4.0 F Method Used: TAG Closed Cup

Explosive Limits:

LEL: 1.00 UEL: No data.

Autoignition Pt:

No data available.

Fire Fighting Instructions

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Flammable Properties and Hazards

Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

Oxides of carbon.

Extinguishing Media

Use carbon dioxide, dry powder, or alcohol resistant foam.

Unsuitable Extinguishing Media

Water stream may be ineffective and spread the fire.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled

Vapors may cause flash fire or ignite explosively.

Clean up: Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. Use non-sparking tools. Use proper bonding and grounding methods for all equipment and processes. Keep out of waterways and bodies of water. Be cautious of vapors collecting in small enclosed spaces, sewers, low lying areas, confined spaces, etc.

Small spills: Take up with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable.

Large spills: Dike far ahead of spill for later disposal.

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

7. Handling and Storage

Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Do not use this product near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.

Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if

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ignited.

Do not spread this product over large surface areas because fire and health safety risks will increase dramatically.

Precautions To Be Taken in Storing

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

8. Exposure Controls/Personal Protection

Respiratory Equipment (Specify Type)

For OSHA controlled work place and other regular users --Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provided protection against vapors.

Eye Protection

Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

Protective Gloves

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile rubber may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

Other Protective Clothing

Various application methods can dictate the use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Engineering Controls (Ventilation etc.)

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate such as basements, bathrooms, or small enclosed areas. Whenever possible, use outdoors in an open area. If using indoors, open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- Stop -- ventilation is inadequate. Leave area immediately. If the work area is not well ventilated, then do not use this product. A dust mask does not provide protection against vapors.

Work/Hygienic/Maintenance Practices

Wash hands thoroughly after use and before eating, drinking, or smoking.

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid		
Melting Point:	No data.		
Boiling Point:	> 130 F		
Autoignition Pt:	No data.		
Flash Pt:	4.0 F Method Used: TAG Closed Cup		
Explosive Limits:	LEL: 1.00	UEL:	

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Specific Gravity (Water = 1): 0.000000
Bulk density: 6.52 LB/GA
Vapor Pressure (vs. Air or mm Hg): No data.
Vapor Density (vs. Air = 1): No data.
Evaporation Rate: No data.
Solubility in Water: No data.
Percent Volatile: 100 % by weight.
VOC / Volume: 780 G/L
Appearance and Odor
No data available.

10. Stability and Reactivity

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability

No data available.

Incompatibility - Materials To Avoid

Incompatible with strong oxidizing agents, strong caustics, acids, alkali, amines, reducing agents, aldehydes, ammonia, nitrogen peroxides and reactive metals.

Hazardous Decomposition Or Byproducts

Decomposition may produce carbon monoxide, carbon dioxide, acrid smoke, formaldehyde, oxides of nitrogen and irritating fumes, chlorine gas, small quantities of phosgene, and hydrogen chloride.

Hazardous Polymerization: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Polymerization

No data available.

11. Toxicological Information

Toxicological Information

CAS# 67-56-1:

Reproductive Effects:, TDLo, Oral, Rat, 42.00 mL/kg, 21 day after birth.

Result:

Effects on Newborn: Behavioral.

- Neurotoxicology and Teratology., Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, Vol/p/yr: 24,519, 2002

Mutagenicity:, Mutation test: DNA damage., Oral, Rat, 10.00 UMOL/KG.

Result:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Tumorigenic:Tumors at site of application.

- Environmental Mutagenesis., For publisher information, see EMMUEG, New York, NY, Vol/p/yr: 4,317, 1982

Acute toxicity, LD50, Oral, Rat, 5628. MG/KG.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

- Gigiena Truda i Professional'nye Zabolevaniya.(Labor Hygiene and Occupational Disease), V/O Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 19(11),27, 1975

Acute toxicity, LC50, Inhalation, Rat, 64000. PPM, 4 H.

Result:

Behavioral: Altered sleep time (including change in righting reflex).

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Behavioral: Somnolence (general depressed activity).

Lungs, Thorax, or Respiration: Dyspnea.

- Raw Material Data Handbook, Vol.1: Organic Solvents, 1974., National Assoc. of Printing Ink Research

Institute, Francis McDonald Sinclair Memorial Labor, Lehigh Univ., Bethlehem, PA 18015, Vol/p/yr: 1,74, 1974

Acute toxicity, TDLo, Oral, Rat, 3.000 gm/kg.

Result:

Liver: Other changes.

- Toxicologist., Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311, Vol/p/yr: 72,315, 2003

Standard Draize Test, Skin, Species: Rabbit, 20.00 MG, 24 H, Moderate.

Result:

Blood: Other changes.

Biochemical: Metabolism (Intermediary): Other proteins.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,187, 1986

Standard Draize Test, Eyes, Species: Rabbit, 40.00 MG, Moderate.

Result:

Blood: Other hemolysis with or without anemia.

Blood: Other changes.

Biochemical: Metabolism (Intermediary): Other proteins.

- Union Carbide Data Sheet, Union Carbide Corp., 39 Old Ridgebury Rd., Danbury, CT 06817, Vol/p/yr: 3/24, 1970

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, 24 H, Moderate.

Result:

Blood: Changes in serum composition (e.g.

Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: Phosphatases.

Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels: Transaminases.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,187, 1986

CAS# 108-88-3:

Mutagenicity:, Mutation test: Sister chromatid exchange., Inhalation, Human, 252.0 g/L.

Result:

Effects on Newborn: Behavioral.

- Mutation Research., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam Netherlands, Vol/p/yr: 519,171, 2002

Acute toxicity, LD50, Oral, Rat, 636.0 MG/KG.

Result:

Behavioral: Convulsions or effect on seizure threshold.

Behavioral: Coma.

Lungs, Thorax, or Respiration: Respiratory stimulation.

- Neurotoxicology., Intox Press, Inc., POB 34075, Little Rock, AR 72203, Vol/p/yr: 2,567, 1981

Acute toxicity, LC50, Inhalation, Rat, 49.00 GM/M3, 4 H.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

- Gigiena Truda i Professional'nye Zabolevaniya. (Labor Hygiene and Occupational Disease), V/O

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Mezhdunarodnaya Kniga, Moscow 113095 Russia, Vol/p/yr: 32(10),23, 1988

Standard Draize Test, Eyes, Human, 300.0 PPM.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

- Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943

CAS# 67-64-1:

Reproductive Effects:, TDLo, Oral, Rat, 273.0 GM/KG, male 13 week(s) pre-mating.

Result:

Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

- National Technical Information Service, Vol/p/yr: PB91-18597,

Mutagenicity:, Mutation test: Cytogenetic analysis., Species: Hamster, 40.00 GM/L, Cell Type: fibroblast.

Result:

Behavioral: Coma.

Gastrointestinal: Alteration in gastric secretion.

- Food and Chemical Toxicology., Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523,

Vol/p/yr: 22,623, 1984

Acute toxicity, LD50, Oral, Rat, 5800. MG/KG.

Result:

Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Tremor.

- Journal of Toxicology and Environmental Health., Hemisphere Pub., 1025 Vermont Ave., NW, Washington, DC 20005, Vol/p/yr: 15,609, 1985

Acute toxicity, LC50, Inhalation, Rat, 50100. MG/M3, 8 H.

Result:

Behavioral: Convulsions or effect on seizure threshold.

Behavioral: Coma.

Nutritional and Gross Metabolic: Changes in: Body temperature decrease.

- American Industrial Hygiene Association Journal., AIHA, 475 Wolf Ledges Pkwy., Akron, OH 44311,

Vol/p/yr: 20,364, 1959

Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, 24 H, Mild.

Result:

Nutritional and Gross Metabolic: Weight loss or decreased weight gain.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,280, 1986

Standard Draize Test, Eyes, Species: Rabbit, 20.00 MG, 24 H, Moderate.

Result:

Behavioral: Change in motor activity (specific assay).

Behavioral: Alteration of classical conditioning.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,280, 1986

Chronic Toxicological Effects

No data available.

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Carcinogenicity/Other Information

IARC 2B - Possibly Carcinogenic to Humans

IARC 3: Not Classifiable as to Carcinogenicity in Humans.

ACGIH A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	872-50-4	n.a.	n.a.	n.a.	n.a.
2. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	Possible	2B	A3	Yes
3. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	n.a.	n.a.	n.a.	n.a.
4. Toluene {Benzene, Methyl-; Toluol}	108-88-3	n.a.	3	A4	n.a.
5. Tall oil acids	61790-12-3	n.a.	n.a.	n.a.	n.a.
6. Potassium hydroxide {Caustic potash}	1310-58-3	n.a.	n.a.	n.a.	n.a.
7. Ethanol, 2-Amino- {Ethanolamine; Monoethanolamine; beta-Aminoethyl alcohol}	141-43-5	n.a.	n.a.	n.a.	n.a.
8. Raffinates (petroleum), sorption process	64741-85-1	n.a.	n.a.	n.a.	n.a.
9. Acetone {2-Propanone}	67-64-1	n.a.	n.a.	A4	n.a.

12. Ecological Information

General Ecological Information

No data available.

Results of PBT and vPvB assessment

CAS# 67-56-1:

LC50, Fathead Minnow (Pimephales promelas), 28400. MG/L, 24 H, Mortality, Water temperature: 25 C C.

Result:

Sex Effects.

- Toxicity and Metabolism Studies with EPA (Environmental Protection Agency) Priority Pollutants and Related Chemicals in Freshwater Organisms, Call, D.J., L.T. Brooke, N. Ahmad, and J.E. Richter, 1983

LC50, Fathead Minnow (Pimephales promelas), 28400. MG/L, 48 H, Mortality, Water temperature: 25 C C.

Result:

Sex Effects.

- Toxicity and Metabolism Studies with EPA (Environmental Protection Agency) Priority Pollutants and Related Chemicals in Freshwater Organisms, Call, D.J., L.T. Brooke, N. Ahmad, and J.E. Richter, 1983

LC50, Fathead Minnow (Pimephales promelas), 28100. MG/L, 96 H, Mortality, Water temperature: 25 C C.

Result:

Sex Effects.

- Toxicity and Metabolism Studies with EPA (Environmental Protection Agency) Priority Pollutants and Related Chemicals in Freshwater Organisms, Call, D.J., L.T. Brooke, N. Ahmad, and J.E. Richter, 1983

LC50, Water Flea (Daphnia magna), larva(e), 100000. UG/L, 96 H, Mortality, Water temperature: 20 C C, pH: 8.50.

Result:

Sex Effects.

- Simultaneous Evaluation of the Acute Effects of Chemicals on Seven Aquatic Species, Ewell, W.S., J.W. Gorsuch, R.O. Kringle, K.A. Robillard, and R.C. Spiegel, 1986

LC50, Water Flea (Daphnia magna), neonate, 4816. MG/L, 24 H, Mortality, Water temperature: 20 C C.

Result:

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Age Effects.

- Acute Toxicity Test with Daphnia magna: An Alternative to Mammals in the Prescreening of Chemical Toxicity?, Guilhermino, L., T. Diamantino, M.C. Silva, and A.M.V.M. Soares, 2000

LC50, Water Flea (Daphnia magna), neonate, 3289. MG/L, 48 H, Mortality, Water temperature: 20 C C.

Result:

Age Effects.

- Acute Toxicity Test with Daphnia magna: An Alternative to Mammals in the Prescreening of Chemical Toxicity?, Guilhermino, L., T. Diamantino, M.C. Silva, and A.M.V.M. Soares, 2000

CAS# 108-88-3:

LC50, Fathead Minnow (Pimephales promelas), 31700. UG/L, 96 H, Mortality, Water temperature: 26 C C, pH: 7.60, Hardness: 46.70 MG/L.

Result:

Age Effects.

- Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Volume 5, Geiger, D.L., L.T. Brooke, and D.J. Call, 1990

LC50, Water Flea (Daphnia magna), 310000. UG/L, 24 H, Mortality, Water temperature: 22 C C, pH: 8.10, Hardness: 72.00 MG/L.

Result:

Age Effects.

- Acute Toxicity of Priority Pollutants to Water Flea (Daphnia magna), LeBlanc, G.A., 1980

CAS# 67-64-1:

LC50, Fathead Minnow (Pimephales promelas), 9500000. UG/L, 24 H, Mortality, Water temperature: 23 C - 28 C C, pH: 7.10, Hardness: 53.60 MG/L.

Result:

Sex Effects.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981

LC50, Fathead Minnow (Pimephales promelas), 9000000. UG/L, 48 H, Mortality, Water temperature: 23 C - 28 C C, pH: 7.10, Hardness: 53.60 MG/L.

Result:

Age Effects.

- Estimates of "No Effect" Concentrations of Selected Pesticides in Freshwater Organisms, Call, D.J., L.T. Brooke, and N. Ahmad, 1981

LC50, Fathead Minnow (Pimephales promelas), juvenile(s), 100000. UG/L, 96 H, Mortality, Water temperature: 20 C C, pH: 8.50.

Result:

Affected fish became hypoactive.

Affected fish lost equilibrium prior to death.

- Simultaneous Evaluation of the Acute Effects of Chemicals on Seven Aquatic Species, Ewell, W.S., J.W. Gorsuch, R.O. Kringle, K.A. Robillard, and R.C. Spiegel, 1986

LC50, Water Flea (Daphnia magna), 10000. UG/L, 24 H, Mortality, Water temperature: 21 C - 25 C C.

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Result:

Age Effects.

- Toxicity of Selected Chemicals to Certain Animals, Dowden, B.F., and H.J. Bennett, 1965

LC50, Water Flea (Daphnia magna), 10000. UG/L, 48 H, Mortality, Water temperature: 21 C - 25 C C.

Result:

Age Effects.

- Toxicity of Selected Chemicals to Certain Animals, Dowden, B.F., and H.J. Bennett, 1965

LC50, Water Flea (Daphnia magna), larva(e), 100000. UG/L, 96 H, Mortality, Water temperature: 20 C C, pH: 8.50.

Result:

Age Effects.

- Simultaneous Evaluation of the Acute Effects of Chemicals on Seven Aquatic Species, Ewell, W.S., J.W.

Gorsuch, R.O. Kringle, K.A. Robillard, and R.C. Spiegel, 1986

13. Disposal Considerations

Waste Disposal Method

Dispose in accordance with applicable local, state, and federal regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name	Paint Related Material
DOT Hazard Class:	3
DOT Hazard Label:	FLAMMABLE LIQUID
UN/NA Number:	UN1263
Packing Group:	II

Additional Transport Information

The shipper / supplier may apply one of the following exceptions: Combustible Liquid, Consumer Commodity, Limited Quantity, Viscous Liquid, Does Not Sustain Combustion, or others, as allowed under 49CFR Hazmat Regulations. Please consult 49CFR Subchapter C to ensure that subsequent shipments comply with these exceptions.

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	872-50-4	No	No	Yes	No
2. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	No	Yes 1000 LB	Yes	Yes
3. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	No	Yes 5000 LB	Yes	No
4. Toluene {Benzene, Methyl-; Toluol}	108-88-3	No	Yes 1000 LB	Yes	Yes
5. Tall oil acids	61790-12-3	No	No	No	No
6. Potassium hydroxide {Caustic potash}	1310-58-3	No	Yes 1000 LB	No	No
7. Ethanol, 2-Amino- {Ethanolamine; Monoethanolamine; beta-Aminoethyl alcohol}	141-43-5	No	No	No	No

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Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
8. Raffinates (petroleum), sorption process	64741-85-1	No	No	No	No
9. Acetone {2-Propanone}	67-64-1	No	Yes 5000 LB	No	Yes

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. N-Methyl-2-pyrrolidone {2-Pyrrolidinone, 1-Methyl-; 1-Methylazacyclopentan-2-one}	872-50-4	No	No	Inventory, 4 Test, 12(b)	Yes
2. Dichloromethane {Methylene chloride; R-30; Freon 30}	75-09-2	HAP	Yes	Inventory, 4 Test, 8A CAIR	Yes
3. Methanol {Methyl alcohol; Carbinol; Wood alcohol}	67-56-1	HAP	No	Inventory	Yes
4. Toluene {Benzene, Methyl-; Toluol}	108-88-3	HAP	Yes	Inventory, 8A CAIR	Yes
5. Tall oil acids	61790-12-3	No	No	Inventory	No
6. Potassium hydroxide {Caustic potash}	1310-58-3	No	No	Inventory	No
7. Ethanol, 2-Amino- {Ethanolamine; Monoethanolamine; beta-Aminoethyl alcohol}	141-43-5	No	No	Inventory	No
8. Raffinates (petroleum), sorption process	64741-85-1	No	No	Inventory	No
9. Acetone {2-Propanone}	67-64-1	No	No	Inventory, 4 Test	No

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

☒ Yes ☐ No Acute (immediate) Health Hazard

☒ Yes ☐ No Chronic (delayed) Health Hazard

☒ Yes ☐ No Fire Hazard

☐ Yes ☒ No Sudden Release of Pressure Hazard

☐ Yes ☒ No Reactive Hazard

Regulatory Information Statement

All components of this material are listed on the TSCA Inventory or are exempt.

16. Other Information

Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.