

MATERIAL SAFETY DATA SHEET

WWT 1980 WATER TREATMENT

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SECTION I - IDENTIFICATION
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COMPANY NAME..... JACAM CHEMICALS, L.L.C.
EMERGENCY PHONE NUMBER... CHEMTREC 800/424-9300
EFFECTIVE DATE..... 02/01/2007, Original issue
REVISED DATE..... None, Not Applicable (N/A)
PRODUCT IDENTIFIER..... WWT 1980
TRADE NAME..... WWT 1980 WATER TREATMENT
CHEMICAL FAMILY..... BISULFITE, AMINE TRIPHOSPHATE/ORGANIC MIXTURE
CHEMICAL FORMULA..... PROPRIETARY INFORMATION

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SECTION II - HAZARDOUS INGREDIENTS
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HAZARDOUS INGREDIENTS	HAZARDOUS INGREDIENT PERCENT	TLV (Units)	HAZARDOUS INGREDIENT CAS/NA/UN NUMBERS
TRADE SECRET	**	Not Established (N/E)	**
METHANOL*	**	200ppm (skin)	67-56-1
ISOPROPANOL	**	400ppm	67-63-0
ETHYLENE GLYCOL*	**	50ppm	107-21-1

*SARA TITLE III
Sec. 313 Chemical

**Proprietary Data

All Ingredients TSCA-
listed or exempt

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SECTION III - PHYSICAL DATA
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BOILING POINT..... Not Determined (N/D)
FREEZING POINT..... N/D
VOLATILITY/VOL(%)..... N/D
MELTING POINT..... Not Applicable (N/A)
VAPOR PRESSURE..... N/D
VAPOR DENSITY (air=1).... N/D
SOLUBILITY IN H2O..... Complete
ODOR AND APPEARANCE..... Alcohol odor/Clear, dark amber liquid
SPECIFIC GRAVITY..... 1.09 - 1.11
EVAPORATION RATE..... N/D
pH..... 3 - 4

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA
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FLASHPOINT AND METHOD OF DETERMINATION..... 75 deg F (TCC)

LOWER EXPLOSION LIMIT(% BY VOL)..... N/D
UPPER EXPLOSION LIMIT(% BY VOL)..... N/D

MEANS OF EXTINCTION..... Dry chemical, alcohol-type foam, carbon dioxide, water
FOR FIRE..... Use NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Heat may build pressure, rupturing closed containers. Use water spray to cool fire-exposed containers and disperse vapors. Vapors are heavier than air and may travel along ground to distant ignition source where they may ignite, flash back, or explode. Vapor explosion hazard indoors, outdoors, or in sewers.
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SECTION V - HEALTH HAZARD DATA
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ODOR THRESHOLD..... N/D

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ACUTE OVER EXPOSURE
EFFECTS.....

ROUTES OF ENTRY: Inhalation, ingestion, skin contact
and absorption, eye contact.

MEDICAL CONDITIONS AGGRAVATED: Significant exposure
may adversely affect people with impaired liver or
kidney function, chronic diseases of the
gastrointestinal tract, skin , respiratory system,
Central Nervous System, and/or eyes.

SKIN: Acidic material. Skin contact may cause
irritation, possibly severe, or burns. Prolonged or
repeated skin contact may cause irritation, drying,
cracking, inflammation, dermatitis, Central Nervous
System damage, damage to the liver, pancreas, or
kidneys. Absorption may occur & produce toxic
effects similar to those resulting from inhalation.

Eyes: Irritation, severe damage. Vapors can cause
conjunctivitis. The primary toxic effect of methanol
is exerted on the nerves and possibly the retina. The
condition can progress to permanent blindness.

INHALATION: Nose, throat, and respiratory irritation,
Central Nervous System depression. Symptoms include
general anesthetic effect, headache, coughing,
nausea, vomiting, blurred vision, blindness. Damage
to the liver, pancreas, or kidneys. Massive exposure
left untreated may lead to collapse, coma, and death.

INGESTION: HARMFUL, POSSIBLY FATAL IF SWALLOWED. Can
cause burns in mouth, esophagus, and stomach. May
cause vomiting, diarrhea, CNS depression, severe
kidney damage, liver damage.

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SPECIFIC FIRST AID
PROCEDURES.....

SKIN: Immediately flush with plenty of water while removing contaminated clothing and shoes. Wash with soap and water. If burns occur or irritation persists, obtain medical attention. Launder clothing before reuse.

EYES: Immediately flush with plenty of water for at least 15 minutes, retracting lids frequently. Prompt action is essential to prevent severe damage or blindness. Obtain immediate medical attention.

INHALATION: Remove to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain immediate medical attention.

INGESTION: If conscious and alert, give water or milk to drink to dilute stomach contents; DO NOT INDUCE VOMITING. Obtain immediate medical attention. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and give liquids again. Never attempt to give anything by mouth to an unconscious or convulsing person.

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SECTION VI - REACTIVITY DATA
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CHEMICAL STABILITY..... Stable

CONDITIONS OF REACTIVITY. Contact with incompatible materials, heat, sparks, flame, all sources of ignition.

INCOMPATIBLE MATERIALS... Oxidizing agents, strong acids, strong bases, alkaline materials, polymerization catalysts, chloroform + sodium methoxide and diethyl zinc, alkyl aluminum salts, acetyl bromide, chloroform + sodium hydroxide, cyanuric chloride, nitric acid, beryllium dihydride, metals (potassium, magnesium, etc.), oxidants (barium, perchlorate, bromine, chlorine, etc.)

HAZARDOUS DECOMPOSITION PRODUCTS..... Carbon dioxide, carbon monoxide, formaldehyde, oxides of nitrogen and sulfur, irritating fumes.

HAZARDOUS POLYMERIZATION. Will not occur

POLYMERIZATION AVOID..... N/A

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SECTION VII - SPILL OR LEAK PROCEDURE
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LEAK AND SPILL PROCEDURES Wearing appropriate personal protection equipment, shut off leak if safe to do so. Eliminate all sources of ignition. Contain by diking with inert material to prevent entering drains, sewers, surface or ground waters, and soil. Using explosion-proof or hand pump, pump large spills into DOT-approved waste containers. Absorb residues and small spills with inert material and sweep into DOT-approved waste containers.

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

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SECTION VIII - SPECIAL PROTECTION
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RESPIRATORY PROTECTION... If exposure exceeds PEL/TLV, use NIOSH/MSHA-approved full facepiece self-contained breathing apparatus.

VENTILATION..... Special ventilation may be required if operating conditions result in release of vapors exceeding PEL/TLV.

PROTECTIVE GLOVES..... Chemical resistant impervious PVC-coated, rubber, polyethylene, nitrile, or neoprene.

EYE PROTECTION..... Chemical splash goggles, with full face shield in high exposure situations. DO NOT wear contact lenses.

OTHER PROTECTIVE EQUIPMENT..... Impervious apron or coveralls in high exposure situations, long sleeves, and boots. Safety shower, eye wash fountain, and lavatory should be readily available.

HANDLING PROCEDURES AND EQUIPMENT..... Store in tightly closed, properly vented containers in a cool, dry, well ventilated area away from ignition sources and incompatible materials. "Empty" containers retain hazardous residues and should be handled as though full. Material is acidic and should be handled with plastic, stainless, or hastelloy type matereals. Store drums in bung-up position. Protect from physical damage. Avoid inhalation of vapors and personal contact with product.

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SECTION IX - SPECIAL PRECAUTIONS

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HAZARD CLASS..... 3, Flammable; Subsidiary Hazards: 6.1 Poison, and 8, Corrosive

DOT SHIPPING NAME..... FLAMMABLE LIQUID, TOXIC, CORROSIVE, NOS (METHANOL, ORGANOPHOSPHONATE), PG II

REPORTABLE QUANTITY (RQ). 63,291 lbs., 6,879 gal. (based on Ethylene Glycol)

UN NUMBER..... UN#3286

NA #..... N/A

PACKAGING SIZE..... 5 Gallon/55 Gallon/Bulk

FOOT NOTES

NFPA CLASSIFICATION: HEALTH: *2
FLAMMABILITY: 3
REACTIVITY: 0
SPECIFIC HAZARD: N/A

*Chronic Health Effects

REFERENCES

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----- N O T I C E -----

All information provided in this Material Safety Data Sheet (MSDS) is based upon data obtained from the manufacturer and/or recognized technical sources and is believed to be reliable as of the date hereof. JACAM Chemicals, L.L.C. provides no warranties, either expressed or implied, and assumes no responsibility for the accuracy or completeness. Conditions of use are beyond JACAM's control and therefore users are responsible to verify this data under their own operating conditions to determine whether this product is suitable for their particular circumstances. Users assume all risks of the use, handling, and disposal of this product, or from the publication or use of, or reliance upon, information contained herein. This MSDS relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process. JACAM knows of no medical condition, other than those noted in this MSDS, which are generally recognized as being aggravated by exposure to this product.

* * * END OF MSDS * * *