

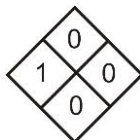
Section 1: PRODUCT & COMPANY IDENTIFICATION

Product Name: Maintenance Additive
Manufacturer's Product Code Numbers: MA
Company: Shafer Enterprises, LLC
170 Andrew Drive
Stockbridge, GA 30281
Telephone: 800-345-3176 • 678-289-4284 • FAX: 678-289-4325
Emergency Phone: Chem-Tel 24-Hour Emergency Service: 800-225-3924
Use of Product: A fungicidal cleaner and lubricant used in low pressure personal cooling systems.

Section 2: HAZARDS IDENTIFICATION

NONHAZARDOUS

Emergency Overview: CAUTION. Mild eye-irritant. Maintenance Additive is a blue liquid with a faint detergent-like odor. It is non-flammable, non-combustible, non-explosive, and non-reactive.



Hazard Rating (NFPA/HMIS)
Health = 1* Reactivity = 0
Fire = 0 Special = 0

Rating Scale
0 = minimal 1 = slight
2 = moderate 3 = serious
4 = severe

Eye Contact: * Mild Eye Irritant.
Skin Contact: No adverse effects expected under typical use conditions.
Ingestion: May cause stomach or intestinal upset if swallowed.
Inhalation: No adverse effects expected under typical use conditions.
Carcinogens: No ingredients are listed by OSHA, IARC, or NTP as know or suspected carcinogens.
Medical Conditions: No medical conditions are known to be aggravated by normal exposure to Maintenance Additive.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

The only ingredient of Maintenance Additive with established exposure limits is undiluted Sodium Silicate (1-5% by weight) (Dipropylene Glycol Methel Ether (1-5%by weight): Sodium Dodecylbenzene Sulfonate(1-5% by weight). Based upon chemical analysis, Maintenance Additive contains no known EPA priority pollutants, heavy metals, or chemicals listed under RCRA, CERCLA, or CWA. Analysis by TCLP (Toxicity Characteristic Leaching Procedure) according to RCRA revealed no toxic organic or inorganic constituents. All components of Maintenance Additive are listed on the TSCA Chemical Substance Inventory.

Section 4: FIRST AID MEASURES

Material Safety Data Sheet: **Maintenance Additive**

Version No. MA-16

Date of Issue: June 2011

If in eyes: Reddening may develop. Immediately rinse the eye with large quantities of cool water; continue 10-15 minutes or until the material has been removed; be sure to remove contact lenses, if present, and to lift upper and lower lids during rinsing. Get medical attention if irritation persists.

If swallowed: Essentially non-toxic. Give several glasses of water to dilute; do not induce vomiting. If stomach upset occurs, consult physician.

Section 4: FIRST AID MEASURES – continued --

If on skin: Minimal effects, if any. Rinse skin with water, rinse shoes and launder clothing before reuse. Reversible reddening may occur in some dermal-sensitive users; thoroughly rinse area and get medical attention if reaction persists.

If inhaled: Non-toxic. Exposures to concentrate-mist may cause mild irritation of nasal passages or throat; remove to fresh air. Get medical attention if irritation persists.

Section 5: FIRE FIGHTING MEASURES

Maintenance Additive is stable, not flammable, and will not burn.

Flash Point/Auto-Ignition: Not flammable.

Flammability Limits: Not flammable.

Extinguishing Media: Not flammable/non-explosive. No special procedures required.

Special Fire Fighting Procedures: None required.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes. Do not rub eyes with hands during cleanup. No special precautions for dermal contact are needed. Wash hands thoroughly after cleaning up spill or leak.

Procedure to follow in case of spill or leak: Evacuate area. Identify source of leak or spill and contain with sand, earth, or containment bin. Then proceed to clean up spill or leak.

Method for cleaning up: Recover all reusable material. Rinse area with plenty of water and mop to sanitary sewer.

Section 7: HANDLING AND STORAGE

No special handling is required. Avoid contact with eyes. Wash hands thoroughly after handling.

Keep in a closed plastic container. Store at ambient temperature. Avoid excessive heat.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits: The Maintenance Additive formulation presents no health hazards to the user when used according to label directions for its intended purposes. Mild skin and eye irritation is possible.

Eye Protection: Access to eye bath or water source is recommended in case of eye contact. Thoroughly wash hands after contact to prevent hand to eye transference. Wear chemical splash goggles or face shield when eye contact is possible due to splashing or spraying.

Skin Protection: Gloves or other skin protection are generally not needed under normal use conditions. Prolonged soaking in the product, repeated skin exposure over long periods of time, pre-existing skin conditions such as dermatitis, or allergic response to contact with the product may warrant the use of gloves, barrier creams, chemical aprons, or other skin protection. Prolonged exposure to concentrate may cause dryness.

Material Safety Data Sheet: **Maintenance Additive**

Version No. MA-16

Date of Issue: June 2011

General Hygiene Conditions: There are no known hazards associated with this material when used as recommended. The following general hygiene considerations are recognized as common good industrial hygiene practices:

- Avoid breathing vapor or mist.
- Avoid contact with eyes.
- Wash thoroughly after handling and before eating, drinking, or smoking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Blue Translucent Liquid	Vapor Pressure:	18 mm Hg @ 20°C; 23.5 mm HG @ 26 °C
Odor:	Very faint detergent-like odor	Vapor Density:	1.3 (air = 1)
Specific Gravity:	1.020 ± 0.015	Density:	8.5 pounds/gallon
pH:	9.35 ± 0.8	Water Solubility:	100%
Boiling Point:	100.6 °C (212 °F)	Evaporation Rate:	> 1 (butyl acetate = 1)
Freezing Point:	Approx -9 °C (16 °F)	Flash Point:	To boiling (ASTM D-93)
		Flame Extension:	N/A

If product freezes, it will reconstitute without loss of efficacy when brought back to room temperature and agitated.

VOC Composite Partial Pressure: 0 mm Hg @ 20 °C

Volatile Organic Compounds (VOCs): Per EPA Method 24, VOCs are 0.59%.

Section 10: STABILITY AND REACTIVITY

Stability:	Stable.
Materials to Avoid:	None known.
Hazardous Decomposition Products:	None expected.

Section 11: TOXICOLOGICAL INFORMATION

Nonhuman Toxicity

Acute Mortality Studies

Oral LD₅₀ (rat): > 5.0 g/kg body weight

Dermal LD₅₀ (rabbit): >2.0 g/kg body weight

Dermal Irritation: Only mild, but reversible, irritation was found in a standard 72 hour test on rabbits. A value of 0.2 (non-irritating) was found on a scale of 0 to 8.

Eye Irritation: With or without rinsing with water, the irritation scores in rabbits at 24 hours did not exceed 15 (mild irritant) on a scale of 0 to 10.

Subchronic Dermal Effects: No adverse effects, except reversible dermal irritation, were found in rabbits exposed to Maintenance Additive (up to 2.0 g/kg/day for 13 weeks) applied to the skin of 25 males and 25 females. Only female body weight gain was affected. Detailed microscopic examination of all major tissues showed no adverse changes.

Fertility Assessment by Continuous Breeding: The Maintenance Additive formulation had no adverse effect on fertility and reproduction in CD-1 mice with continuous administration for 18 weeks, and had no adverse effect on the reproductive performance of their offspring.

Section 12: ECOLOGICAL INFORMATION

Biodegradability: Maintenance Additive is readily decomposed by naturally occurring microorganisms. The biological oxygen demand (BOD), as a percentage of the chemical oxygen demand (COD), after 4, 7, and 11 days was 56%, 60%,

Material Safety Data Sheet: **Maintenance Additive**

Version No. MA-16

Date of Issue: June 2011

and 70%, respectively. Per OECD Closed Bottle Test, Maintenance Additive meets OECD and EPA recommendations for ready biodegradability.

In a standard biodegradation test with soils from three different countries, Butyl Cellosolve reached 50% degradation in 6 to 23 days, depending upon soil type, and exceeded the rate of degradation for glucose, which was used as a control for

Section 12: ECOLOGICAL INFORMATION – continued –

comparison.

Environmental Toxicity Information: Maintenance Additive is considered practically non-toxic per EPA's aquatic toxicity scale. However, it is important not to allow the runoff from cleaning into closed systems such as decorative ponds. Always protect closed systems with tarps or dikes if necessary.

Additional information can be found in Section 15: REGULATORY INFORMATION.

Section 13: DISPOSAL CONSIDERATIONS

Appropriate Method for Disposal of Maintenance Additive:

Unused Product:	Dispose by sanitary sewer.
Used Product:	* Used product may be hazardous depending on the cleaning application and resulting contaminants.
Empty Containers:	* Triple-rinse with water and offer for recycling if available in your area. Otherwise, dispose as non-hazardous waste.

*Dispose of used or unused product, and empty containers in accordance with local, State, Provincial, or Federal regulations for your location. Never dispose of used degreasing rinsates into lakes, streams, and open bodies of water or storm drains.

Section 14: TRANSPORT INFORMATION

This product is non-hazardous for storage and transport according to the U.S. Department of Transportation Regulations. Maintenance Additive requires no special labeling or placarding to meet U.S. Department of Transportation requirements.

IATA Proper Shipping Name: Detergent solution. Hazard Class: Nonhazardous UN Number: Not required.

Section 15: REGULATORY INFORMATION

Reportable Components:	None.		
VOC Reporting:	0.5% per gallon (0.0425 pounds/gallon)		
<u>All components are listed on:</u>	EINECS and TSCA Inventory		
<u>No components listed under:</u>	Clean Air Act Section 112		
<u>RCRA Status:</u>	Not a hazardous waste.	<u>CERCLA Status:</u>	No components listed.
<u>TSCA TIR Reporting:</u>	Not required / Not listed.	<u>CA PROP. 65 Status:</u>	No components listed.

Section 16: OTHER INFORMATION

Questions about the information found on this MSDS should be directed to:

SHAFER ENTERPRISES, LLC – TECHNICAL DEPARTMENT

170 Andrew Drive, Stockbridge, GA 30281

Phone: 800-345-3176 [8:30 am – 5 pm Eastern time, Mon-Fri] Fax: 678-289-4325 Email: technical@coolshirt.net

Material Safety Data Sheet: **Maintenance Additive**

Version No. MA-16

Date of Issue: June 2011

DISCLAIMER: The information provided in this MSDS is furnished in good faith and without warranty of any kind. Personnel handling this material must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of this material and the safety and health of employees and customers. Shafer Enterprises, LLC assumes no additional liability or responsibility resulting from the use of, or reliance on, this information.