

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's PAG 46 UV
MSDS NO. 6812UV-6
Revision Date: 03/27/2007
Date Printed: 12/30/2008

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Johnsen's PAG 46 UV
Chemical Family: Refrigeration Oil
Synonyms: None
Emergency Telephone (24 hr.): CHEMTREC 1-800-424-9300

Supplier: Technical Chemical Company, P.O. Box 139, Cleburne, Texas 76033

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	OSHA TWA	OSHA STEL	OSHA SKIN
PAG Proprietary Base Stock Mixture	20-80	Not Listed	Not Listed	Not Listed
PAG Proprietary Inhibitor Package Mixture	0-20	Not Listed	Not Listed	Not Listed

Component	Weight %	OSHA Z PEL	OSHA Z TWA	OSHA Z Ceiling
PAG Proprietary Base Stock Mixture	20-80	Not Listed	Not Listed	Not Listed
PAG Proprietary Inhibitor Package Mixture	0-20	Not Listed	Not Listed	Not Listed

Component	ACGIH TLV TWA	ACGIH TLV STEL	ACGIH TLV Ceiling
PAG Proprietary Base Stock Mixture	Not Listed	Not Listed	Not Listed
PAG Proprietary Inhibitor Package Mixture	Not Listed	Not Listed	Not Listed

3. HAZARDS IDENTIFICATION

Emergency Overview: May cause allergic skin reaction. Causes eye and skin irritation. Vapor, aerosol or mist of the product and thermal degradation products generated at high temperatures can be irritating and harmful if inhaled.

HMIS Classification: Health: 1 Flammability: 1 Physical Hazard: 0
NFPA Rating: Health: 1 Flammability: 1 Reactivity: 0

4. FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Seek medical attention if irritation persists. May cause mild eye irritation.
Ingestion: No evidence of harmful effects from available information
Inhalation: Not a hazard under normal use conditions. Remove from source of exposure. If signs of irritation or toxicity occur seek medical attention.
Skin Contact: Remove contaminated clothing and shoes, and launder before reuse. Wash with soap and water.

5. FIRE FIGHTING MEASURES

Flammable Properties

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's PAG 46 UV
MSDS NO. 6812UV-6
Revision Date: 03/27/2007
Date Printed: 12/30/2008

5. FIRE FIGHTING MEASURES

Flash Point °F(°C): 340 F (171.1 C)
Flash Point Method: PMCC
Flammable Limits in Air - Lower (%): Not Determined
Flammable Limits in Air - Upper (%): Not Determined
Autoignition Temperature °F(°C): Not Determined
Extinguishing Media: Water fog, carbon dioxide, foam, dry chemical. If water is used, use with care to avoid possible violent production of steam.

Protection Of Fire-Fighters:

Special Fire-Fighting Procedures: Wear approved positive-pressure self-contained breathing apparatus and protective clothing. Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.
Hazardous Combustion Products: Carbon Dioxide. Carbon Monoxide. Oxides of carbon, nitrogen and phosphorus.
Aerosol Comments: Not Applicable

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective clothing and equipment to prevent skin and eye contact.
Spill Procedures: Contain any liquid from leaking containers. Wear protective equipment specified.
Action to be taken if material is released or spilled: Wash walking surfaces with detergent and water to reduce slipping hazard. Absorb spill with inert material. Clean up small spills and leaks immediately.
Environmental Precautions: Do not allow to enter sanitary drains, sewer or surface and subsurface waters.

7. HANDLING AND STORAGE

Handling and Storage: Use only in a well ventilated area. Keep containers tightly closed when not in use. Wash thoroughly after handling. Do Not Swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Showers. Eyewash stations. Local exhaust ventilation as necessary to maintain exposures to within applicable limits.
Eyes: Chemical goggles; also wear a face shield if splashing hazard exists.
Skin Protection: Use chemical resistant gloves for prolonged skin contact.
Respiratory Protection: Not normally needed, if controls are adequate. If needed, use MSHA-NIOSH approved respirator for organic vapors.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear to green liquid
Odor: MILD
pH Value: 5.6
Vapor Pressure: <0.01 mm Hg @ 20 C.
Vapor Density (Air=1): >10
Boiling Point (°F): >200 C
Melting/Freezing Point: -45C
Solubility in Water: <0.5%
Bulk Density at 20°C: Not Determined
Molecular Weight: Mixture
Specific Gravity (H2O=1): .99-1
Viscosity: Not Determined
Evaporation Rate: (Butyl Acetate = 1): <0.01
VOC Content(%): Not determined.
Decomposition Temperature: Not Known

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Conditions to Avoid: None anticipated

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's PAG 46 UV
MSDS NO. 6812UV-6
Revision Date: 03/27/2007
Date Printed: 12/30/2008

10. STABILITY AND REACTIVITY

Materials to Avoid: Alkali metals. Strong oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Oxides of phosphorus.
Hazardous Polymerization: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

Toxicological Data:

Component	Route	Species	Dose
PAG Proprietary Base Stock Mixture	Inhalation	Rats	Not known.
PAG Proprietary Inhibitor Package Mixture	Inhalation	Rats	Not known.

Carcinogenicity:

Component	IARC	NTP	OSHA
PAG Proprietary Base Stock Mixture	Not Listed	Not Listed	Not Listed
PAG Proprietary Inhibitor Package Mixture	Not Listed	Not Listed	Not Listed

Comments: No component known to be present in this product at >.1% is presently listed as a carcinogen by IARC, NTP or OSHA.

12. ECOLOGICAL INFORMATION

Remarks: Ecological testing has not been conducted on this product.

13. DISPOSAL CONSIDERATION

Waste Classification: This product as purchased does not fall under current U.S. EPA RCRA definitions of hazardous waste. Under RCRA it is the generator's responsibility to determine the status of the waste at the time of its disposal. This product does not contain any CERCLA regulated materials.
Waste Management: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines are found in 40 CFR 261.3. Additionally, state and local rules may apply.
Disposal Method: Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT:
Proper Shipping Name: Not Regulated
Hazard Class: Not Applicable
UN/NA Number: Not Applicable
DOT Packing Group: Not Applicable

IMDG:
Proper Shipping Name: Not Regulated
Hazard Class: Not Applicable
Hazard Subclass: Not Applicable
UN No.: Not Applicable
Packing Group: Not Applicable
Marine Pollutant: No

15. REGULATORY INFORMATION

MATERIAL SAFETY DATA SHEET

Trade Name: Johnsen's PAG 46 UV
MSDS NO. 6812UV-6
Revision Date: 03/27/2007
Date Printed: 12/30/2008

15. REGULATORY INFORMATION

US Federal Regulations:

Component	SARA 313	SARA 302	TPQ	RQ
PAG Proprietary Base Stock Mixture	Not Listed	Not Listed	Not Listed	Not Listed
PAG Proprietary Inhibitor Package Mixture	Not Listed	Not Listed	Not Listed	Not Listed

US OSHA HEALTH CLASSIFICATION: Hazardous per OSHA 29 CFR 1910.1200
SARA 311/312 Hazard Categories: Immediate Health: Yes, Delayed Health: Yes, Fire: No, Reactive: No, Pressure: No.

State Regulations:

Component	California Prop. 65 Cancer list	California - Prop 65 Developmental Toxicity	California Prop. 65 Reproductive Female	California Prop. 65 Reproductive Male
PAG Proprietary Base Stock Mixture	Not Listed	Not Listed	Not Listed	Not Listed
PAG Proprietary Inhibitor Package Mixture	Not Listed	Not Listed	Not Listed	Not Listed

U.S. TSCA: One or more components of this product is not listed on the TSCA Inventory.
Canadian Inventory: One or more components of this product is not listed on the Canadian DSL or NDSL Inventory.

Consumer Product Safety Improvement Act of 2008 General Conformity Certification

The Supplier identified in Section 1 of this MSDS has evaluated this product and certifies it to be labeled and packaged in compliance with the applicable provisions of the Federal Hazardous Substance Act as stated in 16 CFR 1500 and enforced by the Consumer Product Safety Commission, and where applicable the products that require Child Resistant Closures are packaged in accordance with the Poison Prevention Packaging Act as stated in 16 CFR 1700 and enforced by the Consumer Product Safety Commission. All closures have been tested in accordance with the latest protocols. No other testing is required to certify compliance with the above. The date of manufacture is stamped on the product container.

16. OTHER INFORMATION

General Notes:

Disclaimer:

Do not allow undiluted material or large quantities to reach groundwater, bodies of water or sewer system. The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.