

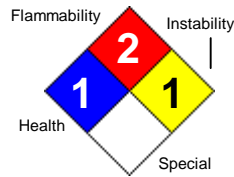


# MATERIAL SAFETY DATA SHEET

## Motor Flush 30 fl. oz.

CYCLO INDUSTRIES, INC.  
401 MAPLEWOOD DRIVE  
SUITE 18  
JUPITER, FL 33458

<b>HEALTH</b>		<b>1</b>
<b>FLAMMABILITY</b>		<b>2</b>
<b>REACTIVITY</b>		<b>1</b>
<b>PPE</b>	<b>B</b>	



Revision: 06/25/2010

Date Created: 06/25/2010

## 1. Product and Company Identification

<b>Product Code:</b>	C-20		
<b>Product Name:</b>	Motor Flush 30 fl. oz.		
<b>Manufacturer Information</b>			
<b>Company Name:</b>	CYCLO INDUSTRIES, INC.		
<b>Phone Number:</b>	(800)843-7813		
<b>Fax Number:</b>	(561)745-3867		
<b>Emergency Contact:</b>	First Aid Emergency	(800)222-1222	
<b>Alternate Emergency Contact:</b>	Shipping Emergency (Chemtrec)	(800)424-9300	
<b>Information:</b>	Emergency (Outside the U.S.)	(312)906-6194	
<b>Web site address:</b>	www.cyclo.com		
<b>Email address:</b>	ehs@cyclo.com		

## 2. Hazards Identification

### Emergency Overview

Combustible Liquid: Aspiration of liquid into the lungs can produce chemical pneumonia or even death.  
Produces skin irritation upon prolonged or repeated contact.

Inhalation: Exposure to high vapor concentrations may produce headaches, giddiness, vertigo and anesthetic stupor.

Ingestion: Ingestion may result in nausea, vomiting, diarrhea and restlessness. Aspiration of liquid into the lungs must be avoided as even small quantities in the lungs can produce chemical pneumonitis, pulmonary edema/hemorrhage and even death.

Skin Contact: Prolonged or repeated liquid contact can cause defatting and drying of the skin and can lead to irritation and/or dermatitis.

Eye Contact: Produces little or no irritation on direct contact with the eye.

### Health Hazards (Acute and Chronic)

No data available.

### Signs and Symptoms Of Exposure

Exposure to high concentrations may produce headache, giddiness, vertigo and anesthetic stupor.

### Medical Conditions Generally Aggravated By Exposure

Pre-existing skin conditions and respiratory disorders may be aggravated by exposures to components of this product.

## 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Concentration
1. Fuel oil, no. 2	68476-30-2	94.0 -98.0 %
2. Technical white oil* (regulated as mist only)	8042-47-5	0.6 -1.2 %
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	0.6 -1.2 %



Hazardous Components (Chemical Name)	CAS #	Concentration
4. Calcium sulfate	7778-18-9	0.005 -0.01 %

## 4. First Aid Measures

### Emergency and First Aid Procedures

If swallowed, do not induce vomiting and do not give liquids. If inhaled, remove to fresh air. If breathing is difficult, administer oxygen. If not breathing or no heartbeat, give artificial respiration or CPR. In case of eye contact, flush eyes with large amounts of tepid water for at least 15 minutes. In case of skin contact, wash with soap and large amounts of water. Remove contaminated clothing. Call physician immediately if adverse reaction occurs.

## 5. Fire Fighting Measures

**Flash Pt:** 147.00 F (63.9 C)    Method Used: Pensky-Marten Closed Cup  
**Explosive Limits:** LEL: No data.    UEL: No data.

### Special Fire Fighting Procedures

Self-contained breathing apparatus should be used for fire fighting. Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and spray from as far a distance as possible. Avoid excessive water spray application. Keep surrounding area cool with water spray from a distance and prevent further ignition of combustible material. Keep run-off out of sewers and water sources.

### Unusual Fire and Explosion Hazards

This product has been determined to be a combustible liquid per the OSHA Hazard Communication Standard and should be handled accordingly. For additional fire related information, see NFPA 30 or the North American Emergency Response Guide 128.

### Suitable Extinguishing Media

For small fires, Class B fire extinguishing media such as CO<sub>2</sub>, dry chemical, foam (AFFF/ATC) or water spray can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Fire fighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

### Unsuitable Extinguishing Media

No data available.

## 6. Accidental Release Measures

### Steps To Be Taken In Case Material Is Released Or Spilled

Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources. Advise authorities and National Response Center if substance has entered a watercourse or sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil. Recover and return free product to proper containers. Use suitable absorbent material such as vermiculite, sand or clay to clean up residual liquids.

## 7. Handling and Storage

### Precautions To Be Taken in Handling

Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements. Use appropriate grounding and bonding practices. Keep out of the reach of children.

### Precautions To Be Taken in Storing

Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues.

### Other Precautions

Avoid repeated and prolonged skin contact. Never siphon this product by mouth. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water.

**8. Exposure Controls/Personal Protection**

Hazardous Components (Chemical Name)	CAS #	OSHA PEL	ACGIH TLV	Other Limits
1. Fuel oil, no. 2	68476-30-2	No data.	100 mg/m3	No data.
2. Technical white oil* (regulated as mist only)	8042-47-5	No data.	No data.	No data.
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No data.	No data.	No data.
4. Calcium sulfate	7778-18-9	15 (dust); 5 (resp.) mg/m3	10 mg/m3 (E)	No data.

**Respiratory Equipment (Specify Type)**

Use approved organic vapor chemical cartridge or supplied air respirators when material produces vapors that exceed permissible limits or excessive vapors are generated. Observe respirator protection factor cited in ANSI Z88.2. Self-contained breathing apparatus should be used for fire fighting.

**Eye Protection**

No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields.

**Protective Gloves**

Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride and polyurethane gloves to prevent skin contact.

**Ventilation**

No data available.

**Work/Hygienic/Maintenance Practices**

No special protective clothing is normally required. Select protective clothing depending on industrial operations. Use mechanical ventilation equipment that is explosion-proof.

**9. Physical and Chemical Properties**

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	360.00 F (182.2 C) - 550.00 F (287.8 C)
<b>Autoignition Pt:</b>	No data.
<b>Flash Pt:</b>	147.00 F (63.9 C) Method Used: Pensky-Marten Closed Cup
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Specific Gravity (Water = 1):</b>	.727 - .859
<b>Density:</b>	6.06 - 7.16@70F
<b>Bulk density:</b>	No data.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	No data.
<b>Evaporation Rate (vs Butyl Acetate=1):</b>	No data.
<b>Solubility in Water:</b>	Negligible
<b>Percent Volatile:</b>	10.0 %
<b>Viscosity:</b>	Water Thin
<b>Heat Value:</b>	No data.
<b>Particle Size:</b>	No data.
<b>Corrosion Rate:</b>	No data.
<b>pH:</b>	Neutral
<b>Appearance and Odor</b>	
	Clear red liquid



### 10. Stability and Reactivity

Stability: Unstable [ ] Stable [ X ]

Conditions To Avoid - Instability

This material is stable at 70F, 760 mm pressure.

Incompatibility - Materials To Avoid

Strong oxidizers such as nitrates, perchlorates, chlorine, flourine.

Hazardous Decomposition Or Byproducts

Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [ X ]

Conditions To Avoid - Hazardous Reactions

No data available.

### 11. Toxicological Information

Lifetime skin painting studies in animals with similar distillate fuels have produced weak to moderate carcinogenic activity following prolonged and repeated exposure. Similar middle distillates, when tested at nonirritating dose levels, did not show any significant carcinogenic activity indicating that this tumorigenic response is likely related to chronic irritation and not to dose. Repeated dermal application has produced severe irritation and systemic toxicity in subacute toxicity studies. Some components of this product, have been shown to produce a species specific, sex hormonal dependent kidney lesion in male rats from repeated oral or inhalation exposure. Subsequent research has shown that the kidney damage develops via the formation of a alpha-2u-globulin, , a mechanism unique to the male rat. Humans do not form alpha-2u-globulin, therefore, the kidney effects resulting from this mechanism are not relevant in humans. Some components of this product were found to be positive in a few mutagenicity tests while negative in the majority of others. The exact relationship between these results and human health is not known.

Summary of health effect data on distillate fuel components:

This products sub-components may contain >.01% naphthalene. Exposure to naphthalene at 30 pm for two years caused lung tumors in female mice. Male mice with the same exposure did not develop tumors. Exposure to 10-60 ppm naphthalene for 2 years caused tumors in the tissue lining of the nose and respiratory tract in male and female rats. Oral administration of 133-267 mg/kg/day of naphthalene in mice for up to 90 days did not produce mortality, systemic toxicity, adversely affect organ or body weight or produce changes in blood. Repeated oral administration of naphthalene produced an anemia in dogs. Repeated intraperitoneal doses of naphthalene produced lung damage in mice. Repeated high doses of naphthalene has caused the formation of cataracts and retinotoxicity in the eyes of rats and rabbits due to accumulation of 1,2-naphthoquinone, a toxic metabolite. Effects in human eyes is uncertain and not well documented. Pregnant rats administered intraperitoneal doses of naphthalene during gestation gave birth to offspring that had delayed heart and bone development. Pregnant mice given near lethal doses of naphthalene showed no significant maternal toxicity and a reduction in the number of pups per litter, but no gross abnormalities in offspring. Suppressed spermiogenesis and progeny development have been reported in mice, rats and guinea pigs after exposure to high concentrations of naphthalene in their drinking water. Certain groups or individuals, i.e., infants, Semites, Arabs, Asians and Blacks, with a certain blood enzyme deficiency (glucose-6-phosphate dehydrogenase) are particularly susceptible to hemolytic agents and can rapidly develop hemolytic anemia and systemic poisoning from ingestion or inhalation of naphthalene.

Carcinogenicity/Other Information

No data available.

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Fuel oil, no. 2	68476-30-2	n.a.	2B	A3	n.a.

**Motor Flush 30 fl. oz.**

Revision: 06/25/2010

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
2. Technical white oil* (regulated as mist only)	8042-47-5	n.a.	n.a.	n.a.	n.a.
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	n.a.	n.a.	n.a.	n.a.
4. Calcium sulfate	7778-18-9	n.a.	n.a.	n.a.	n.a.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

**12. Ecological Information**

Product can cause fouling of shoreline and may be harmful to aquatic life in low concentrations. The 96 hour LL50 values for an accomadated fraction (WAF) of fuel oil ranged from 3.2 to 65 mg/l in fish and 2-210 mg/l in invertebrates. EL 50 values for inhibition of algal growth ranged from 1.8 to 2.9 mg/l for No. 2 fuel oil and from 10 to 78 mg/l for diesel fuel. This product does not concentrate or accumulate in the food chain. If released to soil and water, this product is expected to biodegrade under both aerobic and anaerobic conditions.

Environmental Hazards: TOXIC TO AQUATIC ORGANISMS. MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

Environmental Fate: THIS PRODUCT CONTAINS COMPONENTS WHICH MAY BE PERSISTENT IN THE ENVIRONMENT.

**13. Disposal Considerations****Waste Disposal Method**

This product as produced is not specifically listed as an EPA RCRA hazardous waste according to federal regulations (40 CFR 261). However, when discarded or disposed of, it may meet the criteria of an "characteristic" hazardous waste. This material could become a hazardous waste if mixed or contaminated with a hazardous waste or other substance(s). It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations.

**RCRA Waste ID Code:** D001

**14. Transport Information****LAND TRANSPORT (US DOT)**

**DOT Proper Shipping Name** ORM-D

**AIR TRANSPORT (ICAO/IATA)**

**ICAO/IATA Proper Shipping Name** Petroleum Distillates or Petroleum Products, n.o.s.

**Name**

**UN Number:** 1268

**Packing Group:** I

**MARINE TRANSPORT (IMDG/IMO)**

**IMDG/IMO Proper Shipping Name** Petroleum Distillates or Petroleum Products, n.o.s.

**Name**

**UN Number:** 1268

**Packing Group:** I

**Marine Pollutant:** Yes

**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. Fuel oil, no. 2	68476-30-2	No	No	No	No
2. Technical white oil* (regulated as mist only)	8042-47-5	No	No	No	No
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No	No	No	No



# MATERIAL SAFETY DATA SHEET

## Motor Flush 30 fl. oz.

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
4. Calcium sulfate	7778-18-9	No	No	No	No
<b>Other US EPA or State Lists</b>					
Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Fuel oil, no. 2	68476-30-2	No	No	Inventory	No
2. Technical white oil* (regulated as mist only)	8042-47-5	No	No	Inventory	No
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No	No	Inventory	No
4. Calcium sulfate	7778-18-9	No	No	Inventory	No
Hazardous Components (Chemical Name)	CAS #	CA TAC, Title 8	MA Oil/HazMat	MI CMR, Part 5	NC TAP
1. Fuel oil, no. 2	68476-30-2	No	No	No	No
2. Technical white oil* (regulated as mist only)	8042-47-5	No	No	No	No
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No	No	No	No
4. Calcium sulfate	7778-18-9	No	No	No	No
Hazardous Components (Chemical Name)	CAS #	NJ EHS	NY Part 597	PA HSL	SC TAP
1. Fuel oil, no. 2	68476-30-2	No	No	Yes - No	No
2. Technical white oil* (regulated as mist only)	8042-47-5	No	No	Yes - No	No
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No	No	Yes - No	No
4. Calcium sulfate	7778-18-9	4003	No	Yes - 1	No
Hazardous Components (Chemical Name)	CAS #	WI Air			
1. Fuel oil, no. 2	68476-30-2	No			
2. Technical white oil* (regulated as mist only)	8042-47-5	No			
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No			
4. Calcium sulfate	7778-18-9	No			
<b>International Regulatory Lists</b>					
Hazardous Components (Chemical Name)	CAS #	Canadian DSL	Canadian NDSL	Taiwan TCSCA	
1. Fuel oil, no. 2	68476-30-2	No	No	No	
2. Technical white oil* (regulated as mist only)	8042-47-5	No	No	No	
3. Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	115733-09-0	No	No	No	
4. Calcium sulfate	7778-18-9	No	No	No	
<b>SARA (Superfund Amendments and Reauthorization Act of 1986) Lists:</b>					
<b>Sec.302:</b>	EPA SARA Title III Section 302 Extremely Hazardous Chemical with TPQ. * indicates 10000 LB TPQ if not volatile.				
<b>Sec.304:</b>	EPA SARA Title III Section 304: CERCLA Reportable + Sec.302 with Reportable Quantity. ** indicates statutory RQ.				
<b>Sec.313:</b>	EPA SARA Title III Section 313 Toxic Release Inventory. Note: -Cat indicates a member of a chemical category.				
<b>Sec.110:</b>	EPA SARA 110 Superfund Site Priority Contaminant List				
<b>TSCA (Toxic Substances Control Act) Lists:</b>					
<b>Inventory:</b>	Chemical Listed in the TSCA Inventory.				
<b>5A(2):</b>	Chemical Subject to Significant New Rules (SNURS)				
<b>6A:</b>	Commercial Chemical Control Rules				
<b>8A:</b>	Toxic Substances Subject To Information Rules on Production				
<b>8A CAIR:</b>	Comprehensive Assessment Information Rules - (CAIR)				
<b>8A PAIR:</b>	Preliminary Assessment Information Rules - (PAIR)				
<b>8C:</b>	Records of Allegations of Significant Adverse Reactions				



# MATERIAL SAFETY DATA SHEET

## Motor Flush 30 fl. oz.

Page: 7

Revision: 06/25/2010

**8D:** Health and Safety Data Reporting Rules  
**8D TERM:** Health and Safety Data Reporting Rule Terminations  
**12(b):** Notice of Export

### Other Important Lists:

**CWA NPDES:** EPA Clean Water Act NPDES Permit Chemical  
**CAA HAP:** EPA Clean Air Act Hazardous Air Pollutant  
**CAA ODC:** EPA Clean Air Act Ozone Depleting Chemical (1=CFC, 2=HCFC)  
**CA PROP 65:** California Proposition 65  
**CA TAC:** California AB 1807 - Toxic Air Contaminants  
**CA Title 8:** California Hazardous Substances List: Title 8, Sec. 339  
**MI CMR:** Michigan Critical Materials Register  
**MI Part 5:** Michigan DEQ WRP Part 5 Pollutants List  
**NC TAP:** North Carolina Toxic Air Pollutants  
**NJ EHS:** New Jersey Environmental Hazardous Substances List  
**NY Part 597:** New York Part 597 List of Hazardous Substances  
**PA HSL:** Pennsylvania Hazardous Substances List  
**SC TAP:** South Carolina Toxic Air Pollutants  
**WI Air:** Wisconsin Reportable Air Contaminants

### International Regulatory Lists:

**Canadian DSL:** Canada Domestic Substances List  
**Canadian NDSL:** Canada Non-Domestic Substances List  
**Taiwan TCSCA:** Taiwan Toxic Chemical Substances Control Act of 1986

## 16. Other Information

### Company Policy or Disclaimer

Cyclo Industries, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. Cyclo Industries, Inc. makes no representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose with respect to the information set forth herein or to the product to which the information refers. Accordingly, Cyclo Industries, Inc. will not be responsible for damages resulting from use of or reliance upon this information.