

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

**Section 1. Identification of the Substance/Mixture and of the Company/Undertaking**

- 1.1 Product Code:** C19 & C20  
**Product Name:** Motor Flush 15 oz., 30 oz.
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- 1.3 Details of the Supplier of the Safety Data Sheet:**
- |                          |   |                                       |
|--------------------------|---|---------------------------------------|
| <b>Company Name:</b>     | CYCLO INDUSTRIES, INC.<br>902 SOUTH US HIGHWAY 1<br>JUPITER, FL 33477 | <b>Phone Number:</b><br>(800)843-7813 |
| <b>Web site address:</b> | www.cyclo.com   |                                       |
| <b>Information:</b>      | First Aid Emergency (Outside U.S.)                                    | (312)906-6194                         |
- 1.4 Emergency telephone number:**
- |                           |  |                                |
|---------------------------|--|--------------------------------|
| <b>Emergency Contact:</b> | First Aid Emergency<br>CHEMTREC (703) 527-3887 | (800)752-7869<br>(800)424-9300 |
|---------------------------|--|--------------------------------|

**Section 2. Hazards Identification**

- 2.1 Classification of the Substance or Mixture:**
- 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:**  
Carcinogenicity, Category 2  
Aspiration Toxicity, Category 1  
Flammable Liquids, Category 2
- 2.2 Label Elements:**
- 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:**



Danger



Danger

**GHS Hazard Phrases:**

- H225: Highly flammable liquid and vapor.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H318: Causes serious eye damage.  
H335: May cause respiratory irritation.  
H351: Suspected of causing cancer.

**GHS Precaution Phrases:**

- P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P281: Use personal protective equipment as required.  
P233: Keep container tightly closed.  
P210: Keep away from heat/sparks/open flames/hot surfaces.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P240: Ground/bond container and receiving equipment.  
P241: Use explosion-proof electrical/ventilating/lighting/... equipment ... other specified by the manufacturer/supplier or the competent authority. - if dust clouds can occur.  
P243: Take precautionary measures against static discharge.  
P242: Use only non-sparking tools.

**GHS Response Phrases:**

- P308+313: IF exposed or concerned: Get medical attention/advice.  
P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P331: Do NOT induce vomiting.

P370+378: In case of fire, use dry chemical, water fog, CO2 or foam to extinguish.

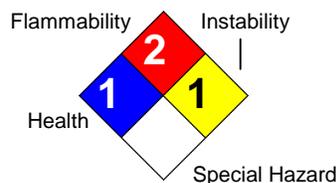
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

### GHS Storage and Disposal Phrases:

P501: Dispose of contents/container in accordance with local/regional/national/international regulation.

P403+235: Store in cool/well-ventilated place.

### Hazard Rating System:



### 2.3 Adverse Human Health Effects and Symptoms:

**Medical Conditions Generally Aggravated By Exposure:** Pre-existing skin conditions and respiratory disorders may be aggravated by exposures to components of this product.

## Section 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
68476-30-2	Fuel oil, no. 2	94.0 -98.0 %	270-671-4 649-225-00-1	Carcinogen 2: H351
8042-47-5	Technical white oil* (regulated as mist only)	0.6 -1.2 %	232-455-8 NA	Asp. Toxic. 1: H304
115733-09-0	Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	0.6 -1.2 %	NA NA	No data available.
7778-18-9	Calcium sulfate	0.005 -0.01 %	231-900-3 NA	Skin Corr. 2: H315 Eye Damage 1: H318 TOST (SE) 3: H335 H336

## Section 4. First Aid Measures

### 4.1 Description of First Aid Measures:

**In Case of Inhalation:** If inhaled, move person to fresh air. If breathing is difficult, administer oxygen.

**In Case of Skin Contact:** Wash with soap and large amounts of water. Remove contaminated clothing.

**In Case of Eye Contact:** Flush eyes with large amounts of tepid water for at least 15 minutes.

**In Case of Ingestion:** Do not induce vomiting and do not give liquids. Immediately call a physician.

**4.2 Important Symptoms and Effects, Both Acute and Delayed:** Exposure to high concentrations may produce headache, giddiness, vertigo, and anesthetic stupor.



## Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** Dry chemical, water fog, CO2 or foam.
- 5.2 Flammable Properties and Hazards:** 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.
- 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.
- Flash Pt:** 44.00 C (111.2 F) Method Used: TAG Open Cup
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** No data.
- 5.3 Fire Fighting Instructions:** Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

## Section 6. Accidental Release Measures

- 6.3 Methods and Material For Containment and Cleaning Up:** 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 materials such as vermiculite, sand, or clay to clean up residual liquids.

## Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid all ignition sources such as flames and sparks. Keep out of the reach of children.
- 7.2 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.

## Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

CAS #	Partial Chemical Name	Britain EH40	France VL	Europe
68476-30-2	Fuel oil, no. 2	No data.	No data.	No data.
8042-47-5	Technical white oil* (regulated as mist only)	No data.	No data.	No data.
115733-09-0	Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	No data.	No data.	No data.
7778-18-9	Calcium sulfate	No data.	TWA: 10 mg/m3	No data.



# SAFETY DATA SHEET

## Motor Flush 15 oz., 30 oz.

Revision: 05/22/2013

Supersedes Revision: 04/16/2013

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

### 8.2 Exposure Controls:

**8.2.1 Engineering Controls (Ventilation etc.):** Local or general exhaust required when using at elevated temperatures that generate vapors or mists.

#### 8.2.2 Personal protection equipment:

**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.

**Other Protective Clothing:** No data available.

**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 criteria cited in ANSI Z88.2. Self-contained breathing apparatus should be used for fire fighting.

**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.

## Section 9. Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid
<b>Appearance and Odor:</b>	Clear, red liquid with petroleum odor.
<b>Melting Point:</b>	NE
<b>Boiling Point:</b>	360.00 F (182.2 C) - 550.00 F (287.8 C)
<b>Flash Pt:</b>	44.00 C (111.2 F) Method Used: TAG Open Cup
<b>Evaporation Rate:</b>	No data.
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.
<b>Vapor Density (vs. Air = 1):</b>	No data.
<b>Specific Gravity (Water = 1):</b>	.727 - .859
<b>Density:</b>	6.06 - 7.16 LB/GA at 70.0 F (21.1 C)
<b>Solubility in Water:</b>	Negligible
<b>Autoignition Pt:</b>	No data.



**9.2 Other Information**

**Percent Volatile:** 10.0 % by volume.

**Section 10. Stability and Reactivity**

- 10.1 Reactivity:** No data available.
- 10.2 Stability:** Unstable [ ] Stable [ X ]
- 10.3 Conditions To Avoid - Hazardous Reactions:** No data available.
- Possibility of Hazardous Reactions:** Will occur [ ] Will not occur [ X ]
- 10.4 Conditions To Avoid - Instability:** This material is stable at 70 F, 760 mm pressure.
- 10.5 Incompatibility - Materials To Avoid:** Strong oxidizers such as nitrates, perchlorates, chlorine, fluorine.
- 10.6 Hazardous Decomposition Or Byproducts:** Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.

**Section 11. Toxicological Information**

**11.1 Information on Toxicological Effects:** 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.

CAS# 68476-30-2:

Other Studies:, TDLo, Skin, Species: Rabbit, 100.0 ML/KG, 12 D.

Results:

Skin and Appendages: Skin: After systemic exposure: Dermatitis, irritative.

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

Related to Chronic Data - death.

- "Toxicology of Petroleum Hydrocarbons, Proceedings of the Symposium, 1st, 1982," MacFarland, H.N., et al., eds., Washington, DC, American Petroleum Institute, 1983 Volume, Vol/p/yr: 1,1, 1983

Acute toxicity, LD50, Oral, Rat, 12.00 GM/KG.

Results:

Behavioral: Somnolence (general depressed activity).

- Advances in Modern Environmental Toxicology., Senate Press, Inc., P.O. Box 252, Princeton Junction, NJ 08550, Vol/p/yr: 6,1, 1984

Acute toxicity, LD (Lethal dose), Skin, Species: Rabbit, 5.000 GM/KG.

Results:

Behavioral: Tremor.

Behavioral: Convulsions or effect on seizure threshold.

- Advances in Modern Environmental Toxicology., Senate Press, Inc., P.O. Box 252, Princeton Junction, NJ 08550, Vol/p/yr: 6,1, 1984

Tumorigenic Effects:, TDLo, Skin, Mouse, 243.0 GM/KG, 97 W.

Results:

Tumorigenic: Carcinogenic by RTECS criteria.

Skin and Appendages: Other: Tumors.

- Fundamental and Applied Toxicology., Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 9,297, 1987

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

Results:

Brain and Coverings: Changes in surface EEG.

- "Toxicology of Petroleum Hydrocarbons, Proceedings of the Symposium, 1st, 1982," MacFarland, H.N., et al., eds., Washington, DC, American Petroleum Institute, 1983 Volume, Vol/p/yr: 1,1, 1983

Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG, 30 S, Mild.

Results:

Behavioral: Somnolence (general depressed activity).

- "Toxicology of Petroleum Hydrocarbons, Proceedings of the Symposium, 1st, 1982," MacFarland, H.N., et al., eds., Washington, DC, American Petroleum Institute, 1983 Volume, Vol/p/yr: 1,1, 1983



# SAFETY DATA SHEET

## Motor Flush 15 oz., 30 oz.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
68476-30-2	Fuel oil, no. 2	n.a.	2B	A3	n.a.
8042-47-5	Technical white oil* (regulated as mist only)	n.a.	n.a.	n.a.	n.a.
115733-09-0	Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	n.a.	n.a.	n.a.	n.a.
7778-18-9	Calcium sulfate	n.a.	n.a.	n.a.	n.a.

### Section 12. Ecological Information

**12.1 Toxicity:** 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.

### Section 13. Disposal Considerations

**13.1 Waste Disposal Method:** Disposal should be made in accordance with federal, state and local regulations.

### Section 14. Transport Information

#### 14.1 LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Consumer Commodity  
**DOT Hazard Class:** ORM-D ORM-D  
**UN/NA Number:**

#### 14.1 LAND TRANSPORT (European ADR/RID):

**ADR/RID Shipping Name:**  
**UN Number:**  
**Hazard Class:** N.A.

#### 14.2 MARINE TRANSPORT (IMDG/IMO):

**IMDG/IMO Shipping Name:** Flammable liquid n.o.s (Fuel Oil No. 2), Ltd Qty.  
**UN Number:** 1993 **Packing Group:** III  
**Hazard Class:** 3 - FLAMMABLE LIQUID **Marine Pollutant:** No



## Section 15. Regulatory Information

**EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists**

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
68476-30-2	Fuel oil, no. 2	No	No	No
8042-47-5	Technical white oil* (regulated as mist only)	No	No	No
115733-09-0	Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	No	No	No
7778-18-9	Calcium sulfate	No	No	No

**CAS # Hazardous Components (Chemical Name)**

**Other US EPA or State Lists**

68476-30-2	Fuel oil, no. 2	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
8042-47-5	Technical white oil* (regulated as mist only)	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
115733-09-0	Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: No; NY Part 597: No; PA HSL: No; SC TAP: No; WI Air: No
7778-18-9	Calcium sulfate	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NC TAP: No; NJ EHS: Yes - 4003; NY Part 597: No; PA HSL: Yes - 1; SC TAP: No; WI Air: No

**CAS # Hazardous Components (Chemical Name)**

**International Regulatory Lists**

68476-30-2	Fuel oil, no. 2	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
8042-47-5	Technical white oil* (regulated as mist only)	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
115733-09-0	Benzenesulfonic acid, C14-24-branched and linear alkyl derivs., calcium salts	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
7778-18-9	Calcium sulfate	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes

## Section 16. Other Information

**Revision Date:** 05/22/2013

**Additional Information About This Product:** No data available.

**This Product:**

**Company Policy or Disclaimer:**

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