

# Motor Flush

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 10/15/2013 Revision date: 10/15/2013

Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : Motor Flush  
Product code : HG2205s, HG2209s

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Cleaner

#### 1.3. Details of the supplier of the safety data sheet

Revive  
14 Brent Drive  
01749 Hudson, MA - USA  
T (978) 562-8522

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (US & Canada); 1-703-527-3887 (International)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Flammable Liquid 3  
Acute toxicity 4 (Inhalation)  
Skin Irritation 2  
Skin sensitization 1  
Carcinogenicity 2  
Specific Target Organ Toxicity After Repeated Exposure 2  
Aspiration Toxicity 1

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02

GHS07

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Flammable liquid and vapour. Harmful if inhaled. Causes skin irritation. May cause an allergic skin reaction. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

Precautionary statements (GHS-US) :

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. In case of fire: Use carbon dioxide, alcohol foam, or dry chemical powder for extinction. Do not use water. If exposed or concerned: Get medical advice/attention. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

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### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Petroleum Distillates (No. 2 Fuel Oil)	(CAS No) 68476-30-2	95- 100	Flam. Liquid 3 Acute Tox. 4 (Inhalation) Skin Irrit. 2 STOT RE 2 Asp. Tox. 1 Carc. 2
The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.			

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a POISON CENTER/doctor/physician if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.
- Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis.

### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide, alcohol foam, dry chemical powder.
- Unsuitable extinguishing media : Water.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon, potentially burnt hydrocarbons.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

### 5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use special care to avoid static electric charges.

##### 6.1.1. For non-emergency personnel

Protective equipment : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

#### 6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Do not swallow. Do not breathe gas, fumes, vapour or spray. Use only outdoors or in a well-ventilated area. Handle and open container with care. When using do not eat, drink or smoke.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store in a cool, dry, place away from incompatible materials. Store in a dark area.

#### 7.3. Specific end use(s)

Not available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Fuel oil No. 2 (68476-30-2)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>

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### 8.2. Exposure controls

Appropriate engineering controls	: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Hand protection	: Wear chemically resistant protective gloves.
Eye protection	: Wear approved eye (properly fitted dust- or splash-proof chemical safety goggles) / face (face shield) protection.
Skin and body protection	: Wear suitable protective clothing, including appropriate boots, boot covers, overshoes, etc., as may be appropriate.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Maintain levels below Community environmental protection thresholds.
Other information	: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid.
Colour	: Red.
Odour	: Petroleum odour.
Odour threshold	: No data available.
pH	: No data available.
Relative evaporation rate (butylacetate=1)	: No data available.
Melting point	: No data available.
Freezing point	: No data available.
Boiling point	: ~ 137 °C (~ 278 °F)
Flash point	: ~ 46 °C (~ 115 °F)
Self ignition temperature	: No data available.
Decomposition temperature	: No data available.
Flammability (solid, gas)	: Flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: 0.843
Solubility	: Negligible.
Log Pow	: No data available.
Log Kow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosive properties	: No data available.
Oxidizing properties	: No data available.
Explosive limits	: No data available.

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reaction known under conditions of normal use. Keep in a cool place.

### 10.2. Chemical stability

Stable under normal storage conditions. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

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### 10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition.

### 10.5. Incompatible materials

Strong oxidizers.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon, potentially burnt hydrocarbons.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

#### Fuel oil No. 2 (68476-30-2)

LD50 oral rat	12 g/kg
LD50 dermal rabbit	4720 µl/kg
LC50 inhalation rat (mg/l)	4.6 mg/l/4h

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ATE (oral)	> 2000 mg/kg, rat
ATE (dermal)	> 2000 mg/kg, rabbit
ATE (inhalation)	13.5 mg/l/4h, rat

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Based on available data, the classification criteria are not met.  
Respiratory or skin sensitisation : May cause an allergic skin reaction.  
Germ cell mutagenicity : Based on available data, the classification criteria are not met.  
Carcinogenicity : Suspected of causing cancer.

#### Fuel oil No. 2 (68476-30-2)

IARC group	3
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Reproductive toxicity : Based on available data, the classification criteria are not met.  
Specific target organ toxicity (single exposure) : Based on available data, the classification criteria are not met.  
Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.  
Aspiration hazard : May be fatal if swallowed and enters airways.  
Symptoms/injuries after inhalation : Harmful if inhaled. May cause respiratory tract irritation. Vapors may cause drowsiness and dizziness.  
Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.  
Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.  
Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

### 12.2. Persistence and degradability

#### Motor Flush

Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

#### Motor Flush

Bioaccumulative potential	Not established.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

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No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.
- Additional information : Handle empty containers with care because residual vapours are flammable.

### SECTION 14: Transport information

In accordance with DOT

#### 14.1. UN number

UN-No.(DOT) : 1993

#### 14.2. UN proper shipping name

- DOT Proper Shipping Name : Flammable liquids, n.o.s. (Fuel oil No. 2)
- Department of Transportation (DOT) Hazard Classes : 3
- Hazard labels (DOT) :



Packing group (DOT) : III

#### 14.3. Additional information

- Other information : Valid for IMDG
- Special transport precautions : Do not handle until all safety precautions have been read and understood.

#### 15.1. US Federal regulations

##### Fuel oil No. 2 (68476-30-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

#### 15.2. US State regulations

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State or local regulations : This product contains chemicals known to the State of California to cause cancer.

### SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

IARC (I)	International Agency for Research on Cancer.
	1 - Carcinogenic to humans; 2A - Probably carcinogenic to humans; 2B - Possibly carcinogenic to humans; 3 - Not classifiable; 4 - Probably not carcinogenic to humans.
NTP (N)	National Toxicology Program.
	1 - Evidence of Carcinogenicity; 2 - Known Human Carcinogens; 3 - Reasonably anticipated to be Human Carcinogen; 4 - Substances delisted from report on Carcinogens; 5 - Twelfth Report - Items under consideration.

### SECTION 16: Other information

- Indication of changes : None.
- Other information : None.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*

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