



SAFETY DATA SHEET

WARCO MOTOR FLUSH

V#081315

SECTION 1: Product and Company Identification

Product Name	WARCO Motor Flush
Product Code	421
Recommended Use	<i>Mineral Spirits is a widely-used solvent, paint thinner, spot remover, asphalt reducer, hand cleaners, parts cleaners, a million uses and applications.</i>
Company	WARCO Products, Inc. 12505 SW HERMAN RD. Tualatin, OR. 97062 www.warcopro.com
Emergency Telephone Number(s)	Chemtrec 1-800-424-9300 (24 HRS)

SECTION 2: Hazards identification

GHS Classification **Flammable Liquids Category 3**

Aspiration Hazard Category 1

Eye Irritation Category 2B

Skin Irritation Category 2

Specific Target Organ Toxicity-Single Exposure (narcotic effects) –Category 3

Static Accumulating Liquid

Signal Word **DANGER!**

Hazard Statements **Flammable liquid and vapor**

Causes skin Irritation

May cause respiratory irritation; or May cause drowsiness or dizziness

Other Hazard Information **Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment**

Sparks may ignite liquid and vapor may cause flash fire

Liquid conductivity is <100 pS/m (picosiemans/meter) at 77°F

GHS Pictogram



Precautionary Statements Do not breathe mist or vapors Use only outdoors or in a well-ventilated area

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

If swallowed: immediately call a poison center or doctor. Do NOT induce vomiting.

Store Locked up: Store in a well-ventilated place. Wear protective gloves/clothing/eye protection/face protection Keep away from heat/sparks/open flames/hot surfaces. –No smoking.

Keep container tightly closed. Ground/bond container and receiving equipment. This alone may be insufficient to remove static electricity.

Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools

If on skin: take off immediately all contaminated clothing. Rinse skin with water/shower. Store in a well-ventilated place. Keep cool. Wash thoroughly after handling.

If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: get medical attention/advice.

If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Dispose of contents in accordance with local/regional/national/ international regulations

SECTION 3: Composition/Information on Ingredients

CAS No.	Component	Common Name	Percent
8052-41-3	Stoddard solvent	Mineral Spirits	100%

Hazardous Constituents contained in complex substances

CAS No.	Component	Common Name	Percent
111-84-2	Nonane	Nonane	1.0 – 7.0
25551-13-7	Trimethyl Benzene (mixed Isomers)	Hemellitene, Pseudocumene, mesitylene	0.5-4.0

SECTION 4: First aid measures

Eyes: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

—First aid measures (others) Get medical attention immediately.

Inhalation Move exposed person to fresh air.

Ingestion DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water.

Symptoms(Acute and delayed) Exposure to high concentrations of vapors may cause irritation to the eyes, nose and throat, nausea, and dizziness.

Note to Physicians No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5: Fire-fighting measures

Suitable Extinguishing Media: Use dry chemical, CO₂, water spray (FOG) or foam.

Unsuitable Extinguishing Media: Avoid solid water stream as it may scatter and spread fire.

Specific Hazards Arising from Chemical: Elevated temperatures can lead to the formation of irritating vapors. Decomposing products may include the following materials: Carbon dioxide and Carbon monoxide. This product is a static accumulating liquid. Static accumulating liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Restrict flow velocity to avoid build-up of static charge. Refer to NFPA 77, API 2003, and CENELEC CLC/TR 50404 for further guidance.

Protective Equipment and Precautions for Firefighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares,



smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Environmental Precautions Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods for Containment

Stop leak if without risk. Use absorbent pads or earthen dams to contain.

Methods for Cleanup

A vapor suppressing foam may be used to reduce vapors. Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled container.

SECTION 7: Handling and storage

Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Use non-sparking tools.

Shipping and Storing Procedures:

Store in accordance with local regulations. Store in a segregated and approved area. Keep in the original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials. Do not store in unlabeled containers. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers that retain product residue may be hazardous.

Incompatibilities: Oxidizing Agents.

SECTION 8: Exposure controls/personal protection

Component Exposure Limits

Stoddard Solvent

ACGIH TLV: TWA: 100 ppm	TWA N/A mg/m3	STEL: N/A ppm	STEL: N/A mg/m3
OSHA PEL: TWA: 500 ppm	TWA 2900	STEL: mg/m3 N/A ppm	STEL: N/A mg/m3
NIOSH REL: TWA: N/A ppm	TWA 350 mg/m3	STEL:N/A ppm	STEL: N/A mg/m3
NIOSH Ceiling:	1800 mg/m3 (15 minutes)		

NONANE

ACGIH TLV: TWA: 200 ppm	TWA: N/A mg/m3	STERL: N/A ppm	STEL: N/A mg/m3
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TRIMETHYL BENZENE (ALL ISOMERS)

ACGIH TLV: TWA: 25 ppm	TWA: N/A mg/m3	STERL: N/A ppm	STEL: N/A mg/m3
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N/A signifies not available

Engineering Controls: This product is a static accumulating liquid. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Material should be handled in enclosed vessels and equipment. Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Eye/Face Protection: Chemical goggles and face shield.

Skin Protection: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary. Respirator selection must be based on known or anticipated exposure levels.

General Hygiene: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing.

SECTION 9: Physical and chemical properties

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Please see the Product Specification Sheet for further information.

Appearance	Colorless	Flammability	Not Available
Physical State	Liquid	Upper/Lower Flammability Limits	Not Available
Odor	Petroleum Solvent	Vapor Pressure (mm Hg at 20°C)	0.62
Odor Threshold	Not Available	Vapor Density	Not Available
pH	Not Available	Relative Density (lbs/gal)	6.43
Melting/Freezing Point (°F)	Not Available	Water Soluble	No
Initial Boiling Point (°F)	>640	Partition Coefficient: noctanol/water	Not Available
Boiling Range (°F)	Not Available	Auto-ignition Temperature (°F)	Not Available
Flash Point (°F)	105	Decomposition Temperature (°F)	Not Available
Evaporation Rate	Not Available	Viscosity (40°C mm²/s)	1.8

SECTION 10: Stability and reactivity

REACTIVITY: Polymerization will not occur

CHEMICAL STABILITY: Stable under normal conditions. If heated, product's static accumulation will rise and could cause flash fire.

POSSIBILITY OF HAZARDOUS REACTIONS: None, under normal processing.

CONDITIONS TO AVOID: High temperatures, flames, sparks.

INCOMPATIBLE MATERIALS: Strong acids and oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

SECTION 11: Toxicological information

Acute Exposure

Respiratory Irritation: An inhalation hazard may only arise if product is used in aerosol conditions or if heated up. If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and upper respiratory tract.

Eye Irritation: Causes mild eye irritation that is reversible with proper care.



Skin Irritation: Causes mild skin irritation that is reversible with proper care.

Sensitization: Not expected to cause skin or respiratory sensitization.

Aspiration Hazard: If swallowed can be aspirated into lungs and cause chemical pneumonia, varying degrees of pulmonary injury or death. If swallowed, do NOT induce vomiting.

Chronic Exposure

Target Organ Effects: Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death. Prolonged or repeated direct exposure to the skin results in symptoms of irritation and redness, dermatitis or oil acne.

Carcinogenicity: No data available to indicate product or any components present at greater than .1% are carcinogenic.

Mutagenicity: No data available to indicate product or any components present at greater than .1% are mutagenic or genotoxic.

Reproductive Toxicity: No data available to indicate either product or components present at greater than .1% that may cause reproductive toxicity.

Teratogenicity: No data available to indicate product or any components contained at greater than .1% may cause birth defects.

Analysis – LD50 / LC50

Inhalation LC50 Rat	>5mg/L (4Hr mist)
Oral LD50 Rat	>5000 mg/kg
Dermal LD50 Rabbit	>2000mg/kg

SECTION 12: Ecological information

Component Analysis- Ecotoxicity – Aquatic Life

Duration	Test	Species	Concentration/Conditions
96 hr	LL50	<i>Oncorhyncus mykiss</i>	8.2 mg/L
48 hr	EL50	<i>Oncorhyncus mykiss</i>	32 mg/L
96 hr	EL50	<i>Scenedesmus subspicatus</i>	45 mg/L
Chronic Survival	NOELR	Aquatic Vertebrates	2.6 mg/L
Chronic Growth	NOELR	Aquatic Vertebrates	2.6 mg/L
Chronic Survival	NOELR	<i>Daphnia magna</i>	16 mg/L
Chronic Reproduction	EL 50	<i>Daphnia magna</i>	10 mg/L
Chronic reproduction	NOELR	<i>Daphnia magna</i>	26 mg/L

Persistence & Degradability	Inherently biodegradable
Bioaccumulation Potential	Not Available
Soil Mobility	Not Available
Other Adverse Effects	Not Available




SECTION 13: Disposal considerations

The generation of waste should be avoided or minimized wherever possible. Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

SECTION 14: Transport information

Emergency Response Guide No. 128

North American Emergency Response Guide Book

	UN Number	Shipping Name	Hazard Class	Packing Group	Labels/Placard
U.S DOT Bulk (over 119 gallons)	1268	Petroleum Distillates, N.O.S. (Naphtha Solvent)	Combustible Liquid	III	
U.S DOT Non-Bulk		Not Regulated			Exempt from labeling and placarding unless shipped via air or vessel
IATA	1268	Petroleum Distillates N.O.S. (Naphtha Solvent)	3	III	
IMDG	1268	Petroleum Distillates N.O.S. (Naphtha Solvent)	3	III	

SECTION 15: Regulatory information

SARA Section 311 & 312 Classifications

Acute Hazard:	Yes
Chronic Hazard:	Yes
Fire Hazard:	Yes
Reactivity Hazard:	No

CERCLA: This product contains the following components listed under the Comprehensive Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4: NONE

California Prop 65: This product contains chemical(s) known to the state of California to cause cancer and/or birth defects.

Global Chemical Inventories

Inventory

US TSCA	Present*
EU	Present
Japan	Not available
Australia	Present
New Zealand	Present
Canada	Present
Switzerland	Not available
Korea	Present
Philippines	Present



China Present
Taiwan Not available

* May be subject to TSCA 12b export notification. Contains Nonane (CASRN: 111-84-2) at 7 %.

SECTION 16: Other information

US NFPA Ratings

Health: 2 Fire: 2 Reactivity: 0

HMIS Ratings

Health: 1 Fire: 2 Physical Hazards: 0

SDS Date of Preparation/Revision: 13 August 2015

Revision Reason: New SDS

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.