



SAFETY DATA SHEET

WARCO FUEL INJECTOR CLEANER

V#060115

SECTION 1: Product and Company Identification

SDS ID: 467

PRODUCT: WARCO Fuel Injector Cleaner

PRODUCT NUMBER: 12/12 oz. (Liquid) - 426 (WAA-0301)

FORMULA NUMBER: PPB-0230

Manufacturer WARCO Products, Inc
 12505 SW HERMAN RD.
 TUALATIN, OR 97062

Telephone No. 503-783-0250

Emergency telephone number

(800) 424-9300 24hr (in the US)

TRANSPORTATION EMERGENCY PHONE NUMBER (Chemical Spills and Transport Accidents only):

CHEMTREC 1-800-424-9300 (in the US)

SDS DATE OF PREPARATION/REVISION: 6/1/15

PRODUCT USE: Automobile fuel additive - consumer use

RESTRICTIONS ON USE: None identified

SECTION 2: Hazards identification

GHS/HAZCOM 2012 Classification:

Health

Aspiration Toxicity Category 1

Carcinogen Category 2

Skin Irritant Category 2

Physical

Flammable Liquid Category 3

Label Elements



DANGER!

H226 Flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation

H351 Suspected of causing cancer

Prevention:

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground or bond container and receiving equipment
P241 Use explosion-proof electrical, ventilating, and lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash exposed skin thoroughly after handling.
P280 Wear protective gloves, protective clothing, and eye protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P332 + P313 If skin irritation occurs: Get medical attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P308 + P313 IF exposed or concerned: Get medical advice.
P370 + P378 In case of fire: Use carbon dioxide, alcohol-foam or dry chemical to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local and national regulations.

SECTION 3: Composition/Information on Ingredients

Component	CAS No.	Amount
Refined Petroleum Distillates	8052-41-3 8008-20-6 64742-95-6	60-100%
Proprietary Ingredient	Mixture	1-20%
Nonane	111-84-2	0-10%
1,2,4-Trimethylbenzene	95-63-6	0-10%
Naphthalene	91-20-3	<0.6%

The exact concentrations are a trade secret.

SECTION 4: First aid measures

INHALATION: If symptoms of exposure develop, remove to fresh air. If breathing becomes difficult, administer oxygen. Administer artificial respiration if breathing has stopped. Seek immediate medical attention.



SKIN CONTACT: Remove contaminated clothing. Immediately wash contacted area thoroughly with soap and water. If skin irritation persists skin irritation or symptoms of exposure develop, seek medical attention.

EYE CONTACT: Exposed eyes should be immediately flushed with copious amounts of water using a steady stream for a minimum of 15 minutes. If irritation, pain, swelling or tearing persists, seek medical attention.

INGESTION: Do NOT induce vomiting. Get medical assistance by calling an emergency room or poison control center. If medical advice cannot be obtained, take the person and product to the nearest medical emergency treatment center or hospital. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs.

MOST IMPORTANT SYMPTOMS: Skin irritant. Inhalation may cause headache, dizziness, drowsiness, nausea, and unconsciousness. Swallowing may cause nausea, vomiting and diarrhea. This product is an aspiration hazard; product can enter the lungs during swallowing or vomiting and cause lung damage.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Seek immediate medical attention for ingestion.

NOTES TO PHYSICIAN: If clinically indicated, stomach contents should be evacuated carefully in a manner which avoids aspiration. The airway must be protected. A serious potential effect is aspiration pneumonitis, which may lead to non-cardiogenic pulmonary edema. The patient should be observed for signs of lung injury if aspiration is suspected.

SECTION 5: Fire-fighting measures

SUITABLE EXTINGUISHING MEDIA: Use water fog, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water..

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Flammable liquid. Product may form combustible mixtures at temperatures at or below the flashpoint. Runoff to sewer may cause fire or explosion hazard. Vapors are heavier than air and may travel along the ground or be moved by ventilation and be ignited by heat, flame or spark at locations distant from the material handling point. Burning may produce carbon monoxide, carbon dioxide and nitrogen oxides..

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored..

SECTION 6: Accidental release measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Eliminate all ignition sources. Ventilate area. Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect material using non-combustible absorbents and disposal in a container suitable for flammable waste.

SECTION 7: Handling and storage

PRECAUTIONS FOR SAFE HANDLING:

Harmful or Fatal if Swallowed. Contains petroleum distillates. Avoid eye contact. Avoid contact with skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Wash exposed skin thoroughly with soap and water after use. Keep container away from heat, sparks, flames and other sources of ignition.

Empty containers retain product residue and may be hazardous. Do not cut, weld, drill, etc. containers, even empty. Do not



reuse empty containers unless properly cleaned.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Keep containers closed when not in use. Store in a cool, dry area away from heat, oxidizers and all sources of ignition.

NFPA CLASSIFICATION: II

SECTION 8: Exposure controls/personal protection

EXPOSURE GUIDELINES

CHEMICAL	EXPOSURE LIMIT
Refined Petroleum Distillates	100 ppm TWA ACGIH TLV 500 ppm TWA OSHA PEL
Proprietary Ingredient	None Established
1,2,4-Trimethylbenzene	25 ppm TWA ACGIH TLV
Naphthalene	10 ppm TWA OSHA PEL 10 ppm TWA ACGIH TLV skin 15 ppm ACGIH STEL

APPROPRIATE ENGINEERING CONTROLS General ventilation should be adequate for all normal use. For operations where the TLV may be exceeded, forced ventilation such as local exhaust may be need to maintain exposures below applicable limits

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None under normal use conditions. For operations where the TLV may be exceeded, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

GLOVES: Impervious gloves such as rubber, nitrile or neoprene recommended for operations which may result in prolonged or repeated skin contact.

EYE PROTECTION: Splash-proof goggles recommended..

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact. Suitable washing and eye flushing facilities should be available in the work area. Contaminated clothing should be immediately removed and laundered before re-use.



SECTION 9: Physical and chemical properties

APPEARANCE:	Clear, light yellow liquid.	ODOR:	Hydrocarbon
ODOR THRESHOLD:	Not determined.	pH:	Not determined
MELTING/FREEZING POINT:	Not determined	BOILING POINT/RANGE:	334-408°F (167.8-208.9°C)
FLASH POINT:	112-155°F (44-68°C) Setaflash	EVAPORATION RATE: (Butyl Acetate = 1)	<1
FLAMMABILITY (SOLID, GAS)	Flammable Liquid	FLAMMABILITY LIMITS:	LEL: Not determined UEL: Not determined
VAPOR PRESSURE:	Not determined	VAPOR DENSITY: (Air=1)	>1
RELATIVE DENSITY:	0.76 – 0.83	SOLUBILITIES	Water: Insoluble
PARTITION COEFFICIENT (n-octanol/water)	Not determined	AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined	VISCOSITY:	Cst at 100°C: <1

SECTION 10: Stability and reactivity

REACTIVITY: Normally unreactive

CHEMICAL STABILITY: Stable

POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with strong oxidizers will generate heat.

CONDITIONS TO AVOID: Keep away from heat, sparks and open flames.

INCOMPATIBLE MATERIALS: Strong oxidizing agents and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion will produce carbon monoxide, carbon dioxide and nitrogen oxides.

SECTION 11: Toxicological information

POTENTIAL HEALTH EFFECTS:

ACUTE HAZARDS:

INHALATION: Excessive inhalation of vapor or mist may cause irritation of the nose, throat and respiratory tract. May cause harmful central nervous system effects including, euphoria, headache, dizziness, drowsiness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death.

SKIN CONTACT: May cause irritation, seen as localized reddening and swelling. Prolonged or repeated exposure to this material may cause redness, burning, drying and cracking of the skin.

EYE CONTACT: May cause eye irritation with discomfort, tearing and blurred vision.



INGESTION: Swallowing may cause gastrointestinal disturbances including irritation, abdominal pain, belching, nausea, vomiting, frequent loose stools and diarrhea. Ingestion of large quantities may cause harmful central nervous system effects similar those listed under "Inhalation". This material is an aspiration hazard; product can enter the lungs during swallowing or vomiting and cause lung inflammation and damage.

CHRONIC EFFECTS: Reports have associated repeated and prolonged overexposure to petroleum distillates with adverse liver, kidney and bone marrow effects and with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the product may be harmful or fatal.

CARCINOGENICITY LISTING: Naphthalene is listed as possibly carcinogenic to humans (Group 2B) by IARC and is reasonably anticipated to be a carcinogen by NTP. None of the other components greater than 0.1% are listed as a carcinogen by IARC, NTP, ACGIH, or OSHA.

ACUTE TOXICITY VALUES:

Calculated ATE for product:	ATE Oral: >2000 mg/kg ATE Dermal: >2000 mg/kg
Petroleum Distillates:	LD50 Oral Rat: >5000 mg/kg LD50 Skin Rabbit: >3,000 mg/kg LC50 Inhalation rat: >5,500 mg/m ³ /4hr.
Nonane:	LC50 Inhalation Rat: 32,000 ppm/4 hr.
1,2,4-Trimethylbenzenes:	LD50 Oral Rat: 5,000 mg/kg LC50 Inhalation Rat: 18,000 mg/m ³ /4 hr.
Naphthalene:	LD50 Oral Rat: 490 mg/kg LD50 Skin Rabbit: >20,000 mg/kg LC50 Inhalation Rat: >340 mg/m ³ /1 hr.

SECTION 12: Ecological information

ECOTOXICITY:

Trimethylbenzenes:	LC50 Fathead Minnow 7.72 mg/L/96 hr. EC50 Daphnia Magna 6.14 mg/L/48 hr.
Naphthalene:	LC50 Oncorhynchus gorbuscha (pink salmon) 1.4 mg/L/96

PERSISTENCE AND DEGRADABILITY:

1,2,4-Trimethylbenzenes: Reached 4-18% of its theoretical BOD in 4 weeks
Naphthalene: Reached 2% of its theoretical BOD in 4 weeks

BIOACCUMULATIVE POTENTIAL:

Nonane: The potential for bio concentration in aquatic organisms is very high. BCF 12000
1,2,4-Trimethylbenzenes: Bio concentration in aquatic organisms is moderate to high.
Naphthalene: BCF 23 to 146, these BCF values suggest the potential for bio concentration in aquatic organisms is low to high.



MOBILITY IN SOIL:

Nonane: Is expected to be immobile in soil. Kow 5.65
1,2,4-Trimethylbenzenes: Will have low mobility in soil.
Naphthalene: Is expected to have moderate to low mobility in soil

OTHER ADVERSE EFFECTS: May be harmful to the aquatic environment.

SECTION 13: Disposal considerations

Dispose of product as hazardous waste (ignitable) in accordance with all local, state/provincial and federal regulations.

SECTION 14: Transport information

Transport Status: This product is a consumer product and inner packagings 5 L/1.3 gal capacity or smaller and a gross mass for the package not exceeding 30 kg/66 lbs meet the criteria for shipment as a limited quantity for both ground and vessel shipment. Because the flashpoint exceeds 37.8°C (100°F) and the product does not meet the definition of any other hazard class and is not a hazardous substance, hazardous waste or marine pollutant, the combustible liquid (flammable liquid for Canada) exception has been taken for US and Canadian ground transportation. This product can be shipped by road and rail as a non-regulated shipment in non-bulk packaging (450 L/119 gal or less) using these exceptions. This exception does not apply to international vessel shipments under the IMDG Code so this product is regulated for shipment by that mode. The IMDG limited quantity provisions apply to shipments with inner packagings 5 L or smaller and gross mass for the package not exceeding 30 kg. Additionally consumer products are exempted from marking of the UN number on the packaging (see IMDG Code 3.4.5.1)

U.S. DOT HAZARD CLASSIFICATION (For Ground Shipments Only)

PROPER SHIPPING NAME: Excepted from HazMat (49 CFR 173.150(f))
TECHNICAL NAME: None
UN NUMBER: None
HAZARD CLASS/PACKING GROUP: Not Applicable
LABELS REQUIRED: None

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

IMDG CODE SHIPPING CLASSIFICATION

Shipments with inner packagings 5 L or smaller and gross mass for the package not exceeding 30 kg can be shipped as a Limited Quantity (see above). This product is exempted from marking the UN number (see IMDG Code 3.4.5.1).

DESCRIPTION: UN1993, FLAMMABLE LIQUID N.O.S. (PETROLEUM DISTILLATES, Trimethylbenzenes), CLASS 3, PGIII, FP 46 C, LTD QTY
ID NUMBER: UN1993
HAZARD CLASS: 3
PACKING GROUP: III
LABELS REQUIRED: LIMITED QUANTITY MARK
PLACARDS REQUIRED: LIMITED QUANTITIES MARK ON TRANSPORT CONTAINER

CANADIAN TDG CLASSIFICATION (For Ground Shipments Only)

PROPER SHIPPING NAME: Excepted from Regulation (Section 1.33)
TECHNICAL NAME: None
UN NUMBER: None

HAZARD CLASS/PACKING GROUP: Not Applicable
LABELS REQUIRED: None

IATA/ICAO SHIPPING CLASSIFICATION:
These products are not suitable for shipment by air.

SECTION 15: Regulatory information

EPA SARA 311/312 HAZARD CLASSIFICATION: Acute Health, Chronic Health, Fire Hazard.

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Pseudocumene (1, 2, 4-Trimethylbenzene)	95-63-6	0-5%
Naphthalene	91-20-3	<0.6%

PROTECTION OF STRATOSPHERIC OZONE: This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

CERCLA SECTION 103: Spills of this product over the RQ (reportable quantity) must be reported to the National Response Center. The RQ for the product based on the RQ for Naphthalene (0.6% maximum) of 100 pounds, is 16,666 pounds. Oil spills are reportable to the National Response Center under the Clean Water Act and many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

CALIFORNIA PROPOSITION 65: This product contains less than 0.6% naphthalene and less than 0.003% ethylene which are known to the State of California cause cancer.

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CANADIAN ENVIRONMENTAL PROTECTION ACT of the ingredients are listed on the Canadian Domestic Substances List.

CANADIAN WHMIS CLASSIFICATION: Class D - Division 2 - Subdivision A - (Very toxic material causing other toxic effects) carcinogen Class B - Division 3 (Combustible Liquid)

CANADIAN WHMIS HAZARD SYMBOLS



This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS): All of the ingredients are listed on the EINECS inventory.

KOREA: All of the ingredients of this product are listed on the Korean Existing Chemicals List (KECL).



CHINA. All of the ingredients of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

PHILIPPINES: Formula 2488-3: All of the ingredients of this product are listed on the Philippine Inventory of Chemical and Chemical Substance (PICCS).

SECTION 16: Other information

NFPA Rating: Fire: 2

Health: 2

Instability: 0

REVISION SUMMARY: All Sections – conversion to GHS SDS classification and labeling and format.

SDS Date of Preparation/Revision: 6/1/2015

While WARCO PRODUCTS, Inc., believes that the data contained herein are factual, the data are not to be taken as a warranty or representation for which WARCO assumes legal responsibility. They are offered for your consideration, investigation and verification. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

If more information is needed, please contact:

WARCO Products

12505 SW HERMAN RD. TUALATIN, OR 97062

503-783-0250