



SAFETY DATA SHEET

Fuel Injection System Cleaner

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1. Product and Company Identification

Product Code: C561
Product Name: Fuel Injection System Cleaner
Company Name: CYCLO INDUSTRIES, INC.
902 SOUTH US HIGHWAY 1
JUPITER, FL 33477
Phone Number: (800)843-7813
Web site address: www.cyclo.com
Email address: ehs@cyclo.com
Emergency Contact: First Aid Emergency (800)752-7869
CHEMTREC (703) 527-3887 (800)424-9300
Information: First Aid Emergency (Outside U.S.) (312)906-6194

2. Hazards Identification

Flammable Liquids, Category 4

Carcinogenicity, Category 2

Skin Corrosion/Irritation, Category 2

Specific Target Organ Toxicity (repeated exposure), Category 2

Aspiration Toxicity, Category 1

Aquatic Toxicity (Acute), Category 3

Aquatic Toxicity (Chronic), Category 2



GHS Signal Word:

Danger

GHS Hazard Phrases:

H227: Combustible liquid.
H304: May be fatal if swallowed and enters airways.
H351: Suspected of causing cancer.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure.
H402: Harmful to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

GHS Precaution Phrases:

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/hot surfaces - No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.
P362+364: Take off contaminated clothing and wash it before reuse.

GHS Response Phrases:

P370+378: In case of fire, use CO2, dry chemical, foam or water spray to extinguish.
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P363: Wash contaminated clothing before reuse.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove



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GHS Storage and Disposal Phrases:

contact lenses, if present and easy to do. Continue rinsing.
P309+311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
P403+235: Store in cool/well-ventilated place.
P501: Dispose of contents/container in accordance with local/regional/national/international regulation.
P405: Store locked up.

Potential Health Effects (Acute and Chronic):

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
68476-30-2	Fuel oil, no. 2	90.0 -97.0 %
64771-72-8	Paraffins (petroleum), normal C5-C20	0.45 -0.9 %
1330-20-7	Xylene (mixed isomers)	0.3 -0.6 %
91-20-3	Naphthalene	0.01 -0.49 %
64742-47-8	Hydrotreated light distillate (petroleum)	0.03 -0.15 %
100-41-4	Ethylbenzene	< 0.15 %

4. First Aid Measures

Emergency and First Aid Procedures:

If swallowed, do not induce vomiting. Rinse mouth. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of skin contact, remove contaminated clothing. Wash skin with soap and water. Call physician immediately if adverse reaction occurs.

5. Fire Fighting Measures

Flash Pt: 60.60 C (141.1 F) Method Used: Pensky-Marten Closed Cup

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

Suitable Extinguishing Media: For small fires, Class B fire extinguishing media such as CO2, 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: Do not use direct water jet.

Fire Fighting Instructions: Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Flammable Properties and Hazards: Combustible liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.



6. Accidental Release Measures

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

Small Spill: Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area.

Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Isolate from sources of heat, sparks, and open flame. Open container in a well ventilated area. Avoid breathing vapors and thermal decomposition products. Keep containers closed when not in use. Vapors are heavier than air and will tend to accumulate in low areas. Avoid use in confined areas without adequate ventilation. Areas of inadequate ventilation could contain concentrations high enough to cause eye irritation, headaches, respiratory discomfort or nausea. Carefully evaluate processes using this product at elevated temperatures to ensure safe operating conditions. Electrostatic buildup may occur when pouring or transferring this product from its container.

Large Spill: Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area.

Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

7. Handling and Storage

Precautions To Be Taken in Handling:

Keep away from heat/sparks/open flames/hot surfaces - No smoking. 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. Use personal protective equipment as required. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid release to the environment. Keep out of the reach of children.

Precautions To Be Taken in Storing:

Store in cool/well-ventilated place. Store locked up.

8. Exposure Controls/Personal Protection

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.
64771-72-8	Paraffins (petroleum), normal C5-C20	No data.	No data.	No data.
1330-20-7	Xylene (mixed isomers)	PEL: 100 ppm	TLV: 100 ppm STEL: 150 ppm	No data.
91-20-3	Naphthalene	PEL: 10 ppm	TLV: 10 ppm STEL: 15 ppm	No data.
64742-47-8	Hydrotreated light distillate (petroleum)	No data.	TLV: 200 mg/m3	No data.
100-41-4	Ethylbenzene	PEL: 100 ppm	TLV: 100 ppm STEL: 125 ppm	No data.



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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.
Eye Protection:	Where splashing is possible, wear safety glasses with side shields or chemical safety goggles.
Protective Gloves:	Wear gloves that cannot be penetrated by chemicals or oil. Neoprene, nitrile, polyvinyl alcohol (PVA), polyvinyl chloride and polyurethane gloves may prevent skin contact. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures).
Other Protective Clothing:	No special protective clothing is normally required. Select protective clothing depending on industrial operations.
Engineering Controls (Ventilation etc.):	Use only with 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Work/Hygienic/Maintenance Practices:	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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Clear red liquid with a petroleum odor.
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	No data.
Flash Pt:	60.60 C (141.1 F) Method Used: Pensky-Marten Closed Cup
Explosive Limits:	LEL: No data. UEL: No data.
Specific Gravity (Water = 1):	.825 - .868 at 70.0 F (21.1 C)
Density:	6.89 - 7.24 LB/GA at 70.0 F (21.1 C)
Vapor Pressure (vs. Air or mm Hg):	No data.
Vapor Density (vs. Air = 1):	No data.
Evaporation Rate:	No data.
Solubility in Water:	Insoluble
Percent Volatile:	No data.

10. Stability and Reactivity

Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Excessive heat, sources of ignition and open flames.
Incompatibility - Materials To Avoid:	Oxidizing materials, acids and alkalis, halogenated compounds.
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 -	No data available.



Hazardous Reactions:

11. Toxicological Information

Toxicological Information:

MIDDLE DISTILLATES, PETROLEUM: Long-term repeated (lifetime) skin exposure to similar materials has been reported to result in an increase in skin tumors in laboratory rodents. The relevance of these findings to humans is not clear at this time.

MIDDLE DISTILLATES WITH CRACKED STOCKS: Light cracked distillates have been shown to be carcinogenic in animal tests and have tested positive with in vitro genotoxicity tests. Repeated dermal exposures to high concentrations in test animals resulted in reduced litter size and litter weight, and increased fetal resorptions at maternally toxic doses. Dermal exposure to high concentrations resulted in severe skin irritation with weight loss and some mortality. Inhalation exposure to high concentrations resulted in respiratory tract irritation, lung changes/infiltration/accumulation, and reduction in lung function.

ISOPARAFFINS: Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

NAPHTHALENE: Severe jaundice, neurotoxicity (kernicterus) and fatalities have been reported in young children and infants as a result of hemolytic anemia from overexposure to naphthalene. Persons with Glucose 6-phosphate dehydrogenase (G6PD) deficiency are more prone to the hemolytic effects of naphthalene. Adverse effects on the kidney have been reported in persons overexposed to naphthalene but these effects are believed to be a consequence of hemolytic anemia, and not a direct effect. Hemolytic anemia has been observed in laboratory animals exposed to naphthalene. Laboratory rodents exposed to naphthalene vapor for 2 years (lifetime studies) developed non-neoplastic and neoplastic tumors and inflammatory lesions of the nasal and respiratory tract. Cataracts and other adverse effects on the eye have been observed in laboratory animals exposed to high levels of naphthalene. Findings from a large number of bacterial and mammalian cell mutation assays have been negative. A few studies have shown chromosomal effects (elevated levels of Sister Chromatid Exchange or chromosomal aberrations) in vitro. Naphthalene has been classified as Possibly Carcinogenic to Humans (2B) by IARC, based on findings from studies in laboratory animals.

DIESEL EXHAUST: Chronic inhalation studies of whole diesel engine exhaust in mice and rats produced a significant increase in lung tumors. Combustion of kerosene and/or diesel fuels produces gases and particulates which include carbon monoxide, carbon dioxide, oxides of nitrogen and/or sulfur and hydrocarbons. Significant exposure to carbon monoxide vapors decreases the oxygen carrying capacity of the blood and may cause tissue hypoxia via formation of carboxyhemoglobin.

XYLENE: Dermal absorption of Xylene in animals causes narcosis. Toxic effects described in animals by inhalation include upper respiratory irritation; central nervous system effects; behavioral effects; decreased weight gain; hearing loss; and effects on the blood, liver, kidneys, heart, spleen, lungs and bone marrow. By ingestion, xylene caused central nervous system effects; decreased body weight and liver effects. Tests of xylene in animals demonstrate no carcinogenic activity. Xylene does not produce heritable genetic damage in animals or genetic damage in bacterial or mammalian cell cultures. Although abnormal sperm were observed after an interperitoneal injection in



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rats, xylene did not produce reproductive effects. Developmental toxicity was observed in animals exposed to xylene but only at concentrations that were maternally toxic.

CAS# 68476-30-2:

Irritation or Corrosion:

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

Eye Irritation: Eye irritant. Risk of irreversible damage to eyes. Based on data from similar materials. Repeated overexposure to naphthalene may cause cataracts. Skin Irritation: Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin. Occasional skin contact with this product is not expected to have serious effects, but good personal hygiene should be practiced and repeated skin contact avoided. This product can also be expected to produce skin irritation upon prolonged or repeated skin



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contact. Personal hygiene measures taken to prevent skin irritation are expected to be adequate to prevent risk of skin cancer.

Respiratory Irritation: Nose, throat and lung irritant. Based on data from similar materials. Exposure to a high concentration of vapor or mist may cause severe irritation to the nose and upper respiratory tract. Breathing of vapor or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
68476-30-2	Fuel oil, no. 2	n.a.	2B	A3	n.a.
64771-72-8	Paraffins (petroleum), normal C5-C20	n.a.	n.a.	n.a.	n.a.
1330-20-7	Xylene (mixed isomers)	n.a.	3	A4	n.a.
91-20-3	Naphthalene	Possible	2B	A4	n.a.
64742-47-8	Hydrotreated light distillate (petroleum)	n.a.	n.a.	A4	n.a.
100-41-4	Ethylbenzene	n.a.	2B	A3	n.a.

12. Ecological Information

No data available.

13. Disposal Considerations

Waste Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulation.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Not-Restricted

DOT Hazard Class:

UN/NA Number:

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not-Restricted

UN Number:

Hazard Class:

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Not-Restricted

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not-Restricted

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
64771-72-8	Paraffins (petroleum), normal C5-C20	No	No	No
1330-20-7	Xylene (mixed isomers)	No	Yes 100 LB	Yes
91-20-3	Naphthalene	No	Yes 100 LB	Yes
64742-47-8	Hydrotreated light distillate (petroleum)	No	No	No
100-41-4	Ethylbenzene	No	Yes 1000 LB	Yes



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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: Yes - 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
64771-72-8	Paraffins (petroleum), normal C5-C20	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - 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
1330-20-7	Xylene (mixed isomers)	CAA HAP,ODC: HAP; CWA NPDES: Yes; TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC, Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: CMR, Part 5; NC TAP: Yes; NJ EHS: Yes - 2014; NY Part 597: Yes; PA HSL: Yes - E; SC TAP: Yes; WI Air: Yes
91-20-3	Naphthalene	CAA HAP,ODC: HAP; CWA NPDES: Yes; TSCA: Yes - Inventory, 4 Test, 8A PAIR; CA PROP.65: Yes; CA TAC, Title 8: TAC, Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NC TAP: Yes; NJ EHS: Yes - 1322; NY Part 597: Yes; PA HSL: Yes - E; SC TAP: Yes; WI Air: Yes
64742-47-8	Hydrotreated light distillate (petroleum)	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - 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
100-41-4	Ethylbenzene	CAA HAP,ODC: HAP; CWA NPDES: Yes; TSCA: Yes - Inventory, 4 Test; CA PROP.65: Yes; CA TAC, Title 8: TAC, Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NC TAP: Yes; NJ EHS: Yes - 0851; NY Part 597: Yes; PA HSL: Yes - E; SC TAP: Yes; WI Air: Yes
CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
68476-30-2	Fuel oil, no. 2	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
64771-72-8	Paraffins (petroleum), normal C5-C20	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
1330-20-7	Xylene (mixed isomers)	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
91-20-3	Naphthalene	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
64742-47-8	Hydrotreated light distillate (petroleum)	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes
100-41-4	Ethylbenzene	Canadian DSL: Yes; Canadian NDSL: No; Taiwan TCSCA: Yes - 116-01



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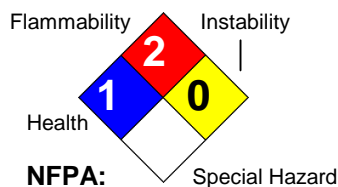
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16. Other Information

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Hazard Rating System:



Additional Information About NOT FOR SALE IN THE US

This Product:

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.