

SAFETY DATA SHEET – MIGHTY VS7 TOP ENGINE CLEANER #FL112

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name MIGHTY VS7 TOP ENGINE CLEANER

Recommended use of the chemical and restrictions on use

Product code FL112

Product Type Highly Flammable Liquid and Vapor
Synonyms None

Supplier's details

Recommended Use Top Engine Cleaner.
Uses advised against No information available

Manufacturer:
Phillips 66 Spectrum Corporation
500 Industrial Park Drive
Selmer, TN 38375

Product Information
SDS Requests: (800) 264-6457 or +17316454972
Technical Information: (800) 264-6457 or +17316454972
General Information: Val.Smith-Wedley@P66.com

Emergency telephone number

**Chemical Emergency Phone
Number** North America: CHEMTREC (800) 424-9300 after 5:00pm CST Or +17035273887

**Company Emergency Phone
Number** USA: (800) 264-6457 or +1731645497

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Aspiration toxicity	Category 1
Flammable Liquids	Category 2

GHS Label elements, including precautionary statements**Emergency Overview****DANGER****Hazard Statements**

Harmful in contact with skin
 Harmful if inhaled
 Causes skin irritation
 Causes serious eye irritation
 Suspected of causing cancer
 Suspected of damaging fertility or the unborn child
 May cause drowsiness or dizziness
 May cause damage to organs (respiratory system, Central nervous system, and Lungs), through prolonged or repeated exposure.
 May be fatal if swallowed and enters airways
 Highly flammable liquid and vapor

**Appearance** Clear**Physical state** Liquid**Odor** Solvent**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wash hands and face thoroughly after handling
 Do not breathe dust/fume/gas/mist/vapors/spray
 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
 Wear protective gloves/protective clothing/eye protection/face protection

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Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention

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 advice/attention

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

In case of fire, use water fog, dry chemical, foam, carbon dioxide (CO₂). Cool containers /tanks with water spray. Do not use a solid water stream as it may scatter and spread fire.

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Keep cool.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

• Very toxic to aquatic life with long lasting effects

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
XYLENE	1330-20-7	40-50
ISOPROPYL ALCOHOL	67-63-0	25-35
ETHYL BENZENE	100-41-4	10-20
DIACETONE ALCOHOL	123-42-2	10-20
TOLUENE	108-88-3	0.1-1.0

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Avoid contact with skin, eyes, and clothing. Avoid breathing, vapors, mist, or gas.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing has stopped, contact emergency medical services immediately.

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Ingestion Do NOT induce vomiting. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person. Risk of product entering the lungs on vomiting after ingestion.

Most important symptoms/effects, acute and delayed

Main Symptoms May cause skin irritation. Drowsiness. Dizziness. Difficulty breathing.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

water fog. Dry chemical. Foam. Carbon dioxide (CO₂). Cool containers / tanks with water spray.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Flammable /Combustible liquid. Container may burst in fire.

Explosion Data

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use shielding to protect fire-fighters from bursting containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

Environmental precautions

Environmental precautions Report spills as required by local and federal regulations.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Contain liquid and collect with an inert, non-combustible material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Keep away from fire, sparks, and heated surfaces. No smoking near areas where material is stored or handled. Use only safe containers. Do not pressurize, cut, heat, weld or expose containers to sources of ignition.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products Store away from strong oxidizers and acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
XYLENE 1330-20-7	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³	-
ISOPROPYL ALCOHOL 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³
DIACETONE ALCOHOL 123-42-2	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 240 mg/m ³	IDLH: 1800 ppm TWA: 50 ppm TWA: 240 mg/m ³
TOLUENE 108-88-3	TWA: 20 ppm	TWA: 200 ppm (vacated) TWA: 100 ppm (vacated) TWA: 375 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 560 mg/m ³ Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m ³ STEL: 150 ppm STEL: 560 mg/m ³

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures

Ventilation systems. Use adequate ventilation to keep the exposure levels below the OELs.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Safety glasses with side-shields.

Skin and body protection

Chemical resistant apron. Protective gloves.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state

Liquid

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Appearance	Clear	Odor	Solvent
Color	clear	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	No information available	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash Point	12 °C / 53.6 °F	Based on lowest flashpoint of the products constituent.
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.849	
Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	

Other information

VOC Content(%)	100
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10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Store away from strong oxidizers and acids.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known information
Inhalation	Exposure to high vapour concentrations may cause nervous systems effects such as headache, nausea, and dizziness.
Eye contact	Irritating to eyes.
Skin contact	Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis.

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Ingestion Not acutely toxic. Aspiration into the lungs during swallowing may cause serious lung damage which may be fatal.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
XYLENE 1330-20-7	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h
ISOPROPYL ALCOHOL 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
ETHYL BENZENE 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
DIACETONE ALCOHOL 123-42-2	= 4 g/kg (Rat)	-	-
TOLUENE 108-88-3	= 2600 mg/kg (Rat)	= 12000 mg/kg (Rabbit)	= 12.5 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Eye damage/irritation Irritating to eyes.
Sensitization No information available.
Germ Cell Mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has evaluated a listed ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
XYLENE 1330-20-7	-	Group 3	-	-
ETHYL BENZENE 100-41-4	A3	Group 2B	-	X
TOLUENE 108-88-3	-	Group 3	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive toxicity Suspected of damaging fertility or the unborn child.
Specific target organ systemic toxicity (single exposure) may cause drowsiness and dizziness.
Specific target organ systemic toxicity (repeated exposure) May cause damage to organs through prolonged or repeated exposure.
Chronic toxicity May cause adverse liver effects.
Target Organ Effects Central nervous system, Eyes, Liver, Respiratory system, Skin.
Aspiration hazard May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (dermal) 2277 mg/kg

ATEmix (inhalation-dust/mist) 2.5 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
XYLENE 1330-20-7	-	13.1 - 16.5 mg/L LC50 Lepomis macrochirus 96h flow-through 13.5 - 17.3 mg/L LC50 Oncorhynchus mykiss 96h 2.661 - 4.093 mg/L LC50 Oncorhynchus mykiss 96h static 23.53 - 29.97 mg/L LC50 Pimephales promelas 96h static 30.26 - 40.75 mg/L LC50 Poecilia reticulata 96h static 7.711 - 9.591 mg/L LC50 Lepomis macrochirus 96h static 13.4 mg/L LC50 Pimephales promelas 96h flow-through 19 mg/L LC50 Lepomis macrochirus 96h 780 mg/L LC50 Cyprinus carpio 96h semi-static 780 mg/L LC50 Cyprinus carpio 96h	-	0.6 mg/L LC50 Gammarus lacustris 48h 3.82 mg/L EC50 water flea 48h
ISOPROPYL ALCOHOL 67-63-0	1000 mg/L EC50 Desmodesmus subspicatus 96h 1000 mg/L EC50 Desmodesmus subspicatus 72h	11130 mg/L LC50 Pimephales promelas 96h static 9640 mg/L LC50 Pimephales promelas 96h flow-through 1400000 µg/L LC50 Lepomis macrochirus 96h	-	13299 mg/L EC50 Daphnia magna 48h
ETHYL BENZENE 100-41-4	4.6 mg/L EC50 Pseudokirchneriella subcapitata 72h 438 mg/L EC50 Pseudokirchneriella subcapitata 96h 2.6 - 11.3 mg/L EC50 Pseudokirchneriella subcapitata 72h static 1.7 - 7.6 mg/L EC50 Pseudokirchneriella subcapitata 96h static	11.0 - 18.0 mg/L LC50 Oncorhynchus mykiss 96h static 7.55 - 11 mg/L LC50 Pimephales promelas 96h flow-through 9.1 - 15.6 mg/L LC50 Pimephales promelas 96h static 32 mg/L LC50 Lepomis macrochirus 96h static 4.2 mg/L LC50 Oncorhynchus mykiss 96h semi-static 9.6 mg/L LC50 Poecilia reticulata 96h static	-	1.8 - 2.4 mg/L EC50 Daphnia magna 48h
DIACETONE ALCOHOL 123-42-2	-	420 mg/L LC50 Lepomis macrochirus 96h 420 mg/L LC50 Lepomis macrochirus 96h static	-	-
TOLUENE 108-88-3	433 mg/L EC50 Pseudokirchneriella subcapitata 96h 12.5 mg/L EC50 Pseudokirchneriella subcapitata 72h static	11.0 - 15.0 mg/L LC50 Lepomis macrochirus 96h static 14.1 - 17.16 mg/L LC50 Oncorhynchus mykiss 96h static 15.22 - 19.05 mg/L LC50 Pimephales promelas 96h flow-through 5.89 - 7.81 mg/L LC50 Oncorhynchus mykiss 96h flow-through 50.87 - 70.34 mg/L LC50 Poecilia reticulata 96h static 12.6 mg/L LC50 Pimephales promelas 96h static 28.2 mg/L LC50 Poecilia reticulata 96h semi-static 5.8 mg/L LC50 Oncorhynchus mykiss 96h semi-static 54 mg/L LC50 Oryzias latipes 96h static	-	5.46 - 9.83 mg/L EC50 Daphnia magna 48h Static 11.5 mg/L EC50 Daphnia magna 48h

Persistence and degradability

No information available.

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Bioaccumulation

No information available.

Chemical Name	log Pow
XYLENE 1330-20-7	3.15
ISOPROPYL ALCOHOL 67-63-0	0.05
ETHYL BENZENE 100-41-4	3.118
DIACETONE ALCOHOL 123-42-2	1.03
TOLUENE 108-88-3	2.65

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA UN1993,FLAMMABLE LIQUIDS,N.O.S. (XYLENE, ISOPROPYL ALCOHOL),3,PGII,LTD.QTY.

IMDG UN1993, FLAMMABLE LIQUIDS,N.O.S.(XYLENE,ISOPROPYL ALCOHOL),3,PGII, LTD.QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
XYLENE	X	X	X	X	X	X	X	X
ISOPROPYL ALCOHOL	X	X	X	X	X	X	X	X
ETHYL BENZENE	X	X	X	X	X	X	X	X
DIACETONE ALCOHOL	X	X	X	X	X	X	X	X
TOLUENE	X	X	X	X	X	X	X	X

Legend:

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TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
CHINA - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
XYLENE - 1330-20-7	1330-20-7	40-50	1.0
ISOPROPYL ALCOHOL - 67-63-0	67-63-0	25-35	1.0
ETHYL BENZENE - 100-41-4	100-41-4	10-20	0.1
TOLUENE - 108-88-3	108-88-3	0.1-1.0	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE 1330-20-7	100 lb			X
ETHYL BENZENE 100-41-4	1000 lb	X	X	X
TOLUENE 108-88-3	1000 lb	X	X	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302): This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
XYLENE 1330-20-7	100 lb		RQ 100 lb final RQ RQ 45.4 kg final RQ
ETHYL BENZENE 100-41-4	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
TOLUENE 108-88-3	1000 lb 1 lb		RQ 1000 lb final RQ RQ 454 kg final RQ RQ 1 lb final RQ RQ 0.454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65

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ETHYL BENZENE - 100-41-4	Carcinogen
TOLUENE - 108-88-3	Developmental Female Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
XYLENE 1330-20-7	X	X	X
ISOPROPYL ALCOHOL 67-63-0	X	X	X
ETHYL BENZENE 100-41-4	X	X	X
DIACETONE ALCOHOL 123-42-2	X	X	X
TOLUENE 108-88-3	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 3	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 3	Physical Hazard 0	Personal protection B

Issuing date 09/08/2015

Revision Date 09/08/2015

Revision Note

No information available

Disclaimer

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.

End of Safety Data Sheet