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

Product identifier

Product name **MIGHTY VS7 POWER 2D**

Recommended use of the chemical and restrictions on use

Product code SB400

Product Type Extremely flammable aerosol

Synonyms None

Supplier's details

Recommended Use 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

Emergency Response North America: CHEMTREC (800) 424-9300 after 5:00pm CST Or +17035273887

Health Emergency USA: (800) 264-6457 or +17316454972

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

Product identifier

Product name **MIGHTY VS7 TOTAL INTAKE SYSTEM CLEANER**

Recommended use of the chemical and restrictions on use

Product code SB300

Product Type Extremely flammable aerosol

Synonyms None

Supplier's details

Recommended Use 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

Emergency Response North America: CHEMTREC (800) 424-9300 after 5:00pm CST Or +17035273887

Health Emergency USA: (800) 264-6457 or +17316454972

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements

Emergency Overview

DANGER

Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Causes skin irritation
Causes serious eye irritation
May damage fertility or the unborn child
May cause respiratory irritation. May cause drowsiness or dizziness
Extremely flammable aerosol
Contains gas under pressure; may explode if heated

Appearance Clear **Physical state** Aerosol **Odor** Light Vanilla Scent Solvent

Precautionary Statements - Prevention
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
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Do not spray on an open flame or other ignition source
Pressurized container: Do not pierce or burn, even after use

Precautionary Statements - Response
If exposed or concerned: Get medical advice/attention
Specific measures (see first aid on this label)
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: Wash with plenty of soap and water.
Call a POISON CENTER or doctor/physician if you feel unwell
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

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

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

• Harmful to aquatic life with long lasting effects

5E-06% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
DIMETHYLETHER	115-10-6	60-70
ACETONITRILE	75-05-8	1-10
N-METHYL-2-PYRROLIDINONE	872-50-4	1-10
MONOISOPROPYLAMINE	75-31-0	1-10

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

4. FIRST AID MEASURES

First aid measures for different exposure routes

Eye contact — Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact — Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation — Move to fresh air. If breathing is difficult, give oxygen. Artificial respiration and/or oxygen may be necessary. If breathing has stopped, contact emergency medical services immediately.

Ingestion — Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician or Poison Control Center immediately.

Most important symptoms/effects, acute and delayed

Main Symptoms — Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. May cause skin and serious eye irritation. My cause respiratory irritation. May damage fertility or the unborn child.

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

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical
No information available.

Explosion Data
Sensitivity to Mechanical Impact none.
Sensitivity to Static Discharge none.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Absorb with sand, clay, or other suitable material. Hard surfaces may be mopped with water. Remove all sources of ignition. Avoid contact with the skin and the eyes. Evacuate personnel to be safe areas.Keep people away from and upwind of spill/leak. Contents under pressure. Do not puncture or incinerate cands. Wear protective gloves/clothing and eye/face protection.

Environmental precautions

Environmental precautions Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up

Methods for Containment Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children. Store locked up.

Incompatible products Strong acids, alkalis, or oxidizing agents.

Aerosol Level 2

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ACETONITRILE 75-05-8	TWA: 20 ppm Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 40 ppm TWA: 70 mg/m^3 TWA: 5 mg/m^3 CN (vacated) TWA: 40 ppm (vacated) TWA: 70 mg/m^3 (vacated) TWA: 5 mg/m^3 (vacated) STEL: 60 ppm (vacated) STEL: 105 mg/m^3 S*	IDLH: 500 ppm IDLH: 25 mg/m^3 CN TWA: 20 ppm TWA: 34 mg/m^3
MONOISOPROPYLAMINE 75-31-0	STEL: 10 ppm TWA: 5 ppm	TWA: 5 ppm TWA: 12 mg/m^3 (vacated) TWA: 5 ppm (vacated) TWA: 12 mg/m^3 (vacated) STEL: 10 ppm (vacated) STEL: 24 mg/m^3	IDLH: 750 ppm

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 Showers
Eyewash stations
Ventilation systems.

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	Aerosol		
Appearance	Clear	**Odor**	Light Vanilla Scent Solvent
Color	amber	**Odor Threshold**	No information available

Property	Values	Remarks • Methods
pH	No information available	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash Point	-41.1 °C / -42 °F	Based on propellant
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	.745	
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(%) 78.97

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
Strong acids, alkalis, or oxidizing agents.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Vapors may irritate throat and respiratory system. May cause drownsiness and dizziness based on components. May cause irritation of respiratory tract. Avoid breathing vapors or mists.
Eye contact	Irritating to eyes. Avoid contact with eyes.
Skin contact	Irritating to skin. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis. Harmful in contact with skin.
Ingestion	May be harmful or fatal if swallowed.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
DIMETHYLETHER 115-10-6	-	-	= 308.5 mg/L (Rat) 4 h
ACETONITRILE 75-05-8	= 2460 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	= 26.8 mg/L (Rat) 4 h
N-METHYL-2-PYRROLIDINONE 872-50-4	= 3598 mg/kg (Rat)	= 8 g/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h
MONOISOPROPYLAMINE 75-31-0	= 111 mg/kg (Rat)	= 382 mg/kg (Rat)	= 4000 ppm (Rat) 4 h

Information on toxicological effects

Symptoms Harmful if swallowed. Harmful if in contact with skin. Causes skin and eye irritation. May damage fertility or the unborn child. May cause respiratory irritation. May cause drowsiness or dizziness.

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.
Irritation Irritating to eyes, respiratory system and skin.
Sensitization None known.
Germ Cell Mutagenicity None known.
Carcinogenicity Contains no ingredient listed as a carcinogen.
Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.
Specific target organ systemic toxicity (single exposure) May cause respiratory irritation. May cause drowsiness and dizziness.
Specific target organ systemic toxicity (repeated exposure) None under normal use conditions.
Chronic toxicity May cause adverse liver effects.
Target Organ Effects Central nervous system, Central Vascular System (CVS), Eyes, Kidney, Liver, Respiratory system, Skin.
Aspiration hazard Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 5E-06% 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 (oral) 1805 mg/kg
ATEmix (dermal) 2183 mg/kg
ATEmix (inhalation-dust/mist) 14.4 mg/l
ATEmix (inhalation-vapor) 93101 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
ACETONITRILE 75-05-8	-	1600 - 1690 mg/L LC50 Pimephales promelas 96h flow-through 1000 mg/L LC50 Pimephales promelas 96h static 1650 mg/L LC50 Poecilia reticulata 96h static 1850 mg/L LC50 Lepomis macrochirus 96h static	-	-

N-METHYL-2-PYRROLIDINONE 872-50-4	500 mg/L EC50 Desmodesmus subspicatus 72h	1072 mg/L LC50 Pimephales promelas 96h static 1400 mg/L LC50 Poecilia reticulata 96h static 832 mg/L LC50 Lepomis macrochirus 96h static	-	4897 mg/L EC50 Daphnia magna 48h
MONOISOPROPYLAMINE 75-31-0	4.13 mg/L EC50 Desmodesmus subspicatus 72h 1.2 mg/L EC50 Desmodesmus subspicatus 96h 62.5 mg/L EC50 Pseudokirchneriella subcapitata 96h	310 mg/L LC50 Pimephales promelas 96h	-	20.8 mg/L EC50 Daphnia magna 48h

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	log Pow
DIMETHYLETHER 115-10-6	-0.18
ACETONITRILE 75-05-8	-0.34
N-METHYL-2-PYRROLIDINONE 872-50-4	-0.46
MONOISOPROPYLAMINE 75-31-0	0.26

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground CONSUMER COMMODITY ORM-D
or
LIMITED QUANTITY

IATA UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
DIMETHYLETHER	X	X	X	X	X	X	X	X
ACETONITRILE	X	X	X	X	X	X	X	X
N-METHYL-2-PYRROLIDINONE	X	X	X	X	X	X	X	X
MONOISOPROPYLAMINE	X	X	X	X	X	X	X	X

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - 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 %
ACETONITRILE - 75-05-8	75-05-8	1-10	1.0
N-METHYL-2-PYRROLIDINONE - 872-50-4	872-50-4	1-10	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
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
ACETONITRILE 75-05-8		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):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
ACETONITRILE 75-05-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
N-METHYL-2-PYRROLIDINONE - 872-50-4	Developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
DIMETHYLETHER 115-10-6	X	X	X
ACETONITRILE 75-05-8	X	X	X
N-METHYL-2-PYRROLIDINONE 872-50-4	X	X	X
MONOISOPROPYLAMINE 75-31-0	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

NFPA	**Health Hazard** 2	**Flammability** 4	**Instability** 0	**Physical and chemical hazards** -
HMIS	**Health Hazard** 2	**Flammability** 4	**Physical Hazard** 1	**Personal protection** B

Issuing date 06/18/2015
Revision Date 06/18/2015
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

1. Identification

Product identifier	**MIGHTY VS7 DIESEL FUEL INJECTOR CLEANER**
Other means of identification	
SDS number	
Part No.	SB303
Tariff code	3811.19.0000
Recommended use	Diesel Fuel Additive
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Phillips 66 Spectrum Corporation
Address	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 phone number:
North America: CHEMTREC (800) 424-9300 after 5:00pm CST Or +17316454972
Health Emergency:
USA: (800) 264-6457 or +17316454972

2. Hazard(s) identification

Physical hazards Health hazards

Environmental hazards

Flammable liquids Skin corrosion/irritation
Serious eye damage/eye irritation Germ cell mutagenicity Carcinogenicity
Reproductive toxicity
Specific target organ toxicity, single exposure
Specific target organ toxicity, repeated exposure

OSHA defined hazards Label elements

Hazardous to the aquatic environment, acute hazard	Category 3
Hazardous to the aquatic environment, long-term hazard	Category 2
	Category 2B
Not classified.	Category 1B
	Category 1B
	Category 2
	Category 3 narcotic effects
	Category 1
	Category 3
	Category 3

Signal word Danger

Hazard statement Flammable liquid and vapor. Causes skin irritation. Causes eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 90.16% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 85.52% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Stoddard Solvent		8052-41-3	80 - < 90
Trimethylbenzene		25551-13-7	3 - < 5
ETHYLBENZENE		100-41-4	1 - < 3
Petroleum naphtha BENZENE,1-		64742-94-5	1 - < 3
METHYLETHYL- NAPHTHALENE		98-82-8	< 1
		91-20-3	< 0.2
Other components below reportable levels			5 - < 10

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Skin Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

contact Eye Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do

Unsuitable extinguishing media not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods General fire hazards Use standard firefighting procedures and consider the hazards of other involved materials.

Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
BENZENE,1-METHYLETHY L- (CAS 98-82-8)	PEL	245 mg/m3

5
0
p
p
m

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
ETHYLBENZENE (CAS 100-41-4)	PEL	435 mg/m3
		100 ppm
NAPHTHALENE (CAS 91-20-3)	PEL	50 mg/m3
		10 ppm
Petroleum naphtha (CAS 64742-94-5)	PEL	400 mg/m3
		100 ppm
Stoddard Solvent (CAS 8052-41-3)	PEL	2900 mg/m3
		500 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
BENZENE,1-METHYLETHY L-(CAS 98-82-8)	TWA	50 ppm	
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm	
NAPHTHALENE (CAS 91-20-3)	TWA	10 ppm	
Petroleum naphtha (CAS 64742-94-5)	TWA	200 mg/m3	Non-aerosol.
Stoddard Solvent (CAS 8052-41-3)	TWA	100 ppm	
Trimethylbenzene (CAS 25551-13-7)	TWA	25 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
BENZENE,1-METHYLETHY L-(CAS 98-82-8)	TWA	245 mg/m3
		50 ppm
ETHYLBENZENE (CAS 100-41-4)	STEL	545 mg/m3
		125 ppm
	TWA	435 mg/m3
		100 ppm
NAPHTHALENE (CAS 91-20-3)	STEL	75 mg/m3
		15 ppm
	TWA	50 mg/m3
		10 ppm
Stoddard Solvent (CAS 8052-41-3)	Ceiling	1800 mg/m3
	TWA	350 mg/m3

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
ETHYLBENZENE (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and	Creatinine in urine	*

	phenylglyoxylic acid

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Skin designation applies.

US - Tennessee OELs: Skin designation

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

NAPHTHALENE (CAS 91-20-3) Can be absorbed through the skin.

Petroleum naphtha (CAS 64742-94-5) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

BENZENE,1-METHYLETHYL- (CAS 98-82-8) Can be absorbed through the skin.

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Liquid.

Physical state Liquid.

Form Liquid.

Color Odor Brown

Mineral Spirits

Odor threshold Not available.

pH Not available.

Melting point/freezing point -94 °F (-70 °C) estimated

Initial boiling point and boiling range 302 °F (150 °C) estimated

Flash point 106.0 °F (41.1 °C) Tag Closed Cup

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 0.9 % estimated 6

Flammability limit - upper (%)

% estimated

Explosive limit - lower (%) Not available.

Explosive limit - upper (%)	Not available.
Vapor pressure	2 hPa estimated
Vapor density	Not available.

Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	450 °F (232.22 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	6.68 lbs/gal
Explosive properties	Not explosive.
Flammability class	Combustible II estimated
Oxidizing properties	Not oxidizing.
Percent volatile	2.68 % estimated
Specific gravity	0.8

10. Stability and reactivity

Reactivity Chemical	The product is stable and non-reactive under normal conditions of use, storage and transport.
stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.

Skin contact Causes skin irritation.

Eye contact Causes eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Headache. May cause drowsiness and dizziness. Nausea, vomiting. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components	Species	Test Results
BENZENE,1-METHYLETHYL- (CAS 98-82-8)		
Acute Inhalation		
LC50	Mouse	2000 ppm, 7 Hours
		24.7 mg/l, 2 Hours
	Rat	8000 ppm, 4 Hours
Oral		
LD50	Rat	1400 mg/kg

ETHYLBENZENE (CAS 100-41-4)

Acute Dermal

LD50	Rabbit	17800 mg/kg

Components	Species	Test Results
Oral		
LD50	Rat	3500 mg/kg
NAPHTHALENE (CAS 91-20-3)		
Acute Dermal		
LD50	Rabbit	> 2 g/kg
Rat		> 20 g/kg
Oral		
LD50	Guinea pig	1200 mg/kg
Rat	490 mg/kg	
Petroleum naphtha (CAS 64742-94-5)		
Acute Inhalation		
LC50	Rat	61 mg/l, 4 Hours
Oral		
LD50	Rat	> 25 ml/kg
Trimethylbenzene (CAS 25551-13-7)		
Acute Oral		
LD50	Rat	8970 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization Germ cell mutagenicity This product is not expected to cause skin sensitization. May cause genetic defects.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

BENZENE,1-METHYLETHYL- (CAS 98-82-8)	2B Possibly carcinogenic to humans.
ETHYLBENZENE (CAS 100-41-4)	2B Possibly carcinogenic to humans.
NAPHTHALENE (CAS 91-20-3)	2B Possibly carcinogenic to humans.
Stoddard Solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

NAPHTHALENE (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

Reproductive toxicity Suspected of damaging fertility or the unborn child. May cause drowsiness and dizziness.

Specific target organ toxicity - single exposure

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
BENZENE,1-METHYLETHYL- (CAS 98-82-8)			
Aquatic			
Crustacea Fish	EC50 LC50	Brine shrimp (Artemia sp.)	3.55 - 11.29 mg/l, 48 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.7 mg/l, 96 hours
ETHYLBENZENE (CAS 100-41-4)			
Aquatic			
Crustacea Fish	EC50 LC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
		Fathead minnow (Pimephales promelas)	7.5 - 11 mg/l, 96 hours
NAPHTHALENE (CAS 91-20-3)			
Aquatic			
Crustacea Fish	EC50 LC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
		Pink salmon (Oncorhynchus gorbuscha)	1.11 - 1.68 mg/l, 96 hours
Petroleum naphtha (CAS 64742-94-5)			
Aquatic			
Crustacea Fish	EC50 LC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/l, 48 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours
			8.8 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
BENZENE,1-METHYLETHYL-	3.66
ETHYLBENZENE	3.15
NAPHTHALENE	3.3
Stoddard Solvent	3.16 - 7.15

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

UN proper shipping name Transport hazard class(es)
Class Subsidiary risk Label(s)
Packing group

Local disposal regulations

Hazardous waste code

Waste from residues / unused products

Contaminated packaging

14. Transport information

DOT

UN number

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Dispose in accordance with all applicable regulations.

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

ORM-D

-

None

Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Packaging exceptions 156, 306
Packaging non bulk Packaging 156, 306
bulk None
IATA
UN number ID8000
UN proper shipping name Consumer commodity
Transport hazard class(es)
Class Subsidiary risk 9
Packing group Environmental -
hazards ERG Code Not applicable.
No.
9L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed. Allowed.
Cargo aircraft only
IMDG

UN number UN1175
UN proper shipping name ETHYLBENZENE SOLUTION (ETHYLBENZENE)
Transport hazard class(es)
Class Subsidiary risk 3
Packing group Environmental - II
hazards
Marine pollutant EmS No.
F-E, S-D
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

IATA

IMDG

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Listed.
ETHYLBENZENE (CAS 100-41-4)	Listed.
NAPHTHALENE (CAS 91-20-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
ETHYLBENZENE	100-41-4	1 - < 3
BENZENE,1-METHYLETHYL-	98-82-8	< 1
NAPHTHALENE	91-20-3	< 0.2

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

BENZENE,1-METHYLETHYL- (CAS 98-82-8)
ETHYLBENZENE (CAS 100-41-4)
NAPHTHALENE (CAS 91-20-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

BENZENE,1-METHYLETHYL- (CAS 98-82-8)
ETHYLBENZENE (CAS 100-41-4)
NAPHTHALENE (CAS 91-20-3)
Petroleum naphtha (CAS 64742-94-5) Stoddard Solvent (CAS 8052-41-3) Trimethylbenzene (CAS 25551-13-7)

US. Massachusetts RTK - Substance List

BENZENE,1-METHYLETHYL- (CAS 98-82-8)
ETHYLBENZENE (CAS 100-41-4)
NAPHTHALENE (CAS 91-20-3)
Stoddard Solvent (CAS 8052-41-3) Trimethylbenzene (CAS 25551-13-7)

US. New Jersey Worker and Community Right-to-Know Act

BENZENE,1-METHYLETHYL- (CAS 98-82-8)
ETHYLBENZENE (CAS 100-41-4)
NAPHTHALENE (CAS 91-20-3)
Petroleum naphtha (CAS 64742-94-5) Stoddard Solvent (CAS 8052-41-3) Trimethylbenzene (CAS 25551-13-7)

US. Pennsylvania Worker and Community Right-to-Know Law

BENZENE,1-METHYLETHYL- (CAS 98-82-8)
ETHYLBENZENE (CAS 100-41-4)
NAPHTHALENE (CAS 91-20-3)
Stoddard Solvent (CAS 8052-41-3) Trimethylbenzene (CAS 25551-13-7)

US. Rhode Island RTK

BENZENE,1-METHYLETHYL- (CAS 98-82-8)
ETHYLBENZENE (CAS 100-41-4)
NAPHTHALENE (CAS 91-20-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

BENZENE,1-METHYLETHYL- (CAS 98-82-8)	Listed: April 6, 2010
ETHYLBENZENE (CAS 100-41-4)	Listed: June 11, 2004
NAPHTHALENE (CAS 91-20-3)	Listed: April 19, 2002

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

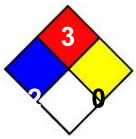
Issue date 07-23-2015

Version # 01

HMIS® ratings Health: 2* Flammability: 3
Physical hazard: 0

NFPA ratings Health: 2
Flammability: 3
Instability: 0

NFPA ratings



Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.