Safety Data Sheet

HiTEC® 4507 Fuel Additive

MSDS no. H4507

1. Product and company identification

Product use Petrochemical industry: Anti-Static Additive

Date of issue/Revisions **19 August 2014**

In case of emergency - Chemical

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+61-290372994 (Australia)
+32-28083237 (Belgium)
4001-204937 (China)
+385-17776920 (Croatia)
000-800-100-7141 (India)
+81-345209637 (Japan)
00-308-13-2549 (South Korea)
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(800) 323-3231 (Customer Service)

2. HAZARDS IDENTIFICATION

Notice to reader

Afton operates a world-wide system for hazard communication. Some hazards shown in Section 2 may apply to non-EU countries and may not result in classification and labeling in the EU. Please see Sections 3 and 15 for country specific classification information, and Section 11 for additional details.

Europe: The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Australia: HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Primary hazards and critical effects : Warning.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
ASPIRATION HAZARD IF SWALLOWED.

Physical/chemical hazards : FLAMMABLE. - United States and Canada
FLAMMABLE. - European Union
VAPOR MAY CAUSE FLASH FIRE.

Environmental hazards : Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Hazardous Material Information System (U.S.A.)

Health	**1**
Fire hazard	**3**
Reactivity	**0**

GHS Classification

Hazard classification : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY: INHALATION - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3
ASPIRATION HAZARD - Category 1
AQUATIC TOXICITY (CHRONIC) - Category 2

Symbol :

Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Keep container tightly closed. Avoid release to the environment.

Response : IF INHALED: 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. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Gently wash with plenty of soap and water.Remove contaminated clothing and wash it before reuse. Rinse skin with water or shower. If skin irritation occurs, seek 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.In case of fire:Use water spray, dry chemical powder or carbon dioxide for extinction. Collect spillage.

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

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

3. Composition/information on ingredients

Note: see section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

Substance/Preparation :

Ingredient name	CAS no.	Conc. (% w/w)	EU Classification	WHMIS Regulated?
Kerosene	8008-20-6	60 - 100	Xn; R65	Yes.
Xylene	1330-20-7	10 - 19.9	R10 Xn; R20/21 Xi; R38	Yes.
Dodecylbenzenesulfonic acid	27176-87-0	5 - 9.9	Xn; R22 C; R34	Yes.
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	1 - 4.9	Xn; R65 R66, R67 N; R51/53	Yes.
Methyl alcohol	67-56-1	1 - 4.9	F; R11 T; R23/24/25, R39/23/24/25	Yes.

4. First aid measures

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion : DO NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. If affected person is fully conscious, give one glass of water to drink. Never give anything by mouth to an unconscious person. Get immediate medical attention.

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

Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

5. Fire-fighting measures

Extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO_2.

Fire-fighting procedures : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Fire/explosion hazards : FLAMMABLE. - United States and Canada FLAMMABLE. - European Union
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.

Hazardous decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides

Flash point : Closed cup: 32°C (89.6°F) [Pensky-Martens.]

6. Accidental release measures

Personal precautions : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5). Do not touch or walk through spilled material.

Environmental precautions and clean-up methods : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways.

Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Handling : Do not ingest. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling.

Storage : Keep container in a well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. Exposure controls/personal protection

Engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal protective equipment

Respiratory system : Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).

Skin and body : Where contact is likely, wear chemical resistant gloves, a chemical resistant suit, and boots. Additional body garments should be used based upon the task being performed.

Hands : Use chemical-resistant, impervious gloves.

Eyes : Safety goggles are considered minimum protection. Goggles with a face shield may be necessary depending on quantity of material and conditions of use.

Occupational exposure limits

Ingredient name	OEL United States	OEL Canada	OEL Europe	OEL Australia
1) Kerosene	**ACGIH TLV (United States). Absorbed through skin.** TWA: 200 mg/m³ 8 hour(s).	(Canada). Notes: Canadian exposure limit applies to straight run Kerosene in Ontario TWA: 35 ppm 8 hour(s).	**ACGIH TLV (United States). Absorbed through skin.** TWA: 200 mg/m³ 8 hour(s).	**ACGIH TLV (United States). Absorbed through skin.** TWA: 200 mg/m³ 8 hour(s).
2) Xylene	**ACGIH (United States, 1996).** TWA: 100 ppm STEL: 150 ppm **OSHA (United States).** TWA: 100 ppm	(Canada). TWA: 100 STEL: 150	**EH40 (UK) (Europe, 2002). Absorbed through skin.** TWA: 50 ppm 8 hour(s). STEL: 100 ppm 15 minute(s).	**NOHSC (Australia, 2003).** STEL: 80 ppm 15 minute(s).
3) Solvent naphtha (petroleum), heavy aromatic	**OSHA (United States).** TWA: 500 ppm 8 hour(s). TWA: 2000 mg/m³ 8 hour(s).	**OSHA (United States).** TWA: 500 ppm 8 hour(s). TWA: 2000 mg/m³ 8 hour(s).	**OSHA (United States).** TWA: 500 ppm 8 hour(s). TWA: 2000 mg/m³ 8 hour(s).	**OSHA (United States).** TWA: 500 ppm 8 hour(s). TWA: 2000 mg/m³ 8 hour(s).

4) Methyl alcohol	**ACGIH (United States, 1994). Absorbed through skin.** TWA: 200 ppm STEL: 250 ppm TWA: 262 mg/m³ STEL: 328 mg/m³ **OSHA (United States, 1989). Absorbed through skin.** TWA: 200 ppm STEL: 250 ppm TWA: 260 mg/m³ STEL: 325 mg/m³	**ACGIH (United States, 1994). Absorbed through skin.** TWA: 200 ppm STEL: 250 ppm TWA: 262 mg/m³ STEL: 328 mg/m³	**EH40 (UK) (Europe, 2002). Absorbed through skin.** TWA: 200 ppm 8 hour(s). STEL: 250 ppm 15 minute(s).	**NOHSC (Australia, 2003). Absorbed through skin.** TWA: 200 ppm 8 hour(s). STEL: 250 ppm 15 minute(s).

9. Physical and chemical properties

Physical state and Appearance : Liquid.

Color : Amber.

Odor : Aromatic. Hydrocarbon.

Density : 0.851 g/cm³ at 20°C 16°C

Specific gravity : 0.85 @ 16°C

Viscosity : <7 cSt @ 40°C

Auto-ignition temperature : Not determined.

Flash point : Closed cup: 32°C (89.6°F) [Pensky-Martens.]

10. Stability and reactivity

Stability : The product is stable.

Materials to avoid : Strong oxidizing and reducing agents.

Conditions to avoid : High temperatures, sparks, and open flames.

11. Toxicological information

Routes of entry : Skin, Eyes, Ingestion, and Inhalation.

Target organs : Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, spleen, gastrointestinal tract, upper respiratory tract, skin, eyes, bone marrow, central nervous system (CNS), optic nerve.

Acute effects

Inhalation : Irritating to respiratory system.

Does not meet EU R37 classification criteria.

Ingestion : Harmful: may cause lung damage if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.

Ingestion may cause gastrointestinal irritation and diarrhea.

Skin contact : Irritating to skin.

Eye contact : Irritating to eyes.

Adverse effects : - Adverse symptoms may include the following:: Bone marrow depression, kidneys, liver, and spleen injury, central nervous system, and blood effects by inhalation and heart beat irregularity (arrythmia) and heart beat increase.
- High exposures to xylene in some animal studies, often at levels toxic to the mother, affected embryo/fetal development. The significance of this finding to humans is not known. Xylene vapour has caused occupational skin sensitization in humans. When exposed to 1800 ppm Xylene vapor, rats experienced hearing deficits to mid-frequency range tones.
- Adverse symptoms may include the following:: Interferes with embryo development in rodents at exposure levels much higher than usual human exposure levels

Carcinogenic effects :

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA	EU

Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Toxicity data

Product/ingredient name	Result	Species	Dose	Exposure
Kerosene	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rabbit	2835 mg/kg	-
	LDLo Oral	Human	500 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	>5000 mg/m³	4 hours
Xylene	LD50 Dermal	Rabbit	>14100 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Oral	Rat - Male	3523 mg/kg	-
	LC50 Inhalation Vapor	Rat	5000 to 8500 ppm	4 hours
Dodecylbenzenesulfonic acid	LD50 Oral	Rat	650 mg/kg	-
Solvent naphtha (petroleum), heavy aromatic	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2500 mg/kg	-
	LC50 Inhalation Vapor	Rat	>11.67 mg/m³	6 hours
Methyl alcohol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5628 mg/kg	-

Other information : Not available.

12. Ecological information

Environmental hazards : Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Based on calculation.

Environmental fate : This product contains components which may be persistent in the environment.

13. Disposal considerations

Waste handling and disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Kerosene, Xylene)	3	III		-
TDG Classification	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Kerosene, Xylene)	3	III		-

ADR/RID Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Kerosene, Xylene)	3	III		**Hazard identification number** 30 **Special provisions** 640 (E) **Tunnel code** (D/E)
IMDG Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Kerosene, Xylene). Marine pollutant	3	III		-
IATA-DGR Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Kerosene, Xylene)	3	III		-
ADG Class	UN1993	FLAMMABLE LIQUIDS, N. O.S. (Kerosene, Xylene)	3	III		-

Notice to reader

The above transport information is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

15. Regulatory information

EU regulations

Hazard symbol(s) :

Harmful, Dangerous for the environment

Risk phrases : R10- Flammable.
R20/21- Harmful by inhalation and in contact with skin.
R65- Harmful: may cause lung damage if swallowed.
R36/38- Irritating to eyes and skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S16- Keep away from sources of ignition - No smoking.
S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28- After contact with skin, wash immediately with plenty of water.
S36/37- Wear suitable protective clothing and gloves.
S57- Use appropriate containment to avoid environmental contamination.

Contains : Xylene 215-535-7

US regulations

SARA 313 toxic chemical notification and release reporting (w/w%) : Xylene 10 - 19.9

SARA 311/312 Hazardous Categorization : SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

RQ (Reportable quantity) : CERCLA: Hazardous substances.: Xylene: 100 lbs. (45.4 kg); DODECYLBENZENESULFONIC ACID: 1000 lbs. (454 kg); METHANOL: 5000 lbs. (2270 kg);

State - California Prop. 65 : No products were found.

Canadian regulations

WHMIS (Classification) : Class B-2: Flammable liquid
Class D-2B: Material causing other toxic effects (Toxic).

International Inventory Status

United States inventory (TSCA 8b) : All components are listed or exempted.

Canada inventory : All components are listed or exempted.

Europe inventory : All components are listed or exempted.

Japan inventory (ENCS) : All components are listed or exempted.

Australia inventory (AICS)	:	All components are listed or exempted.
Korea inventory (KECI)	:	All components are listed or exempted.
China inventory (IECSC)	:	All components are listed or exempted.
Philippines inventory (PICCS)	:	All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC)	:	Not determined.

16. Other information

PREPARATION INFORMATION

Validated by HS&E Department (Tel: +1 804 788 5800) on 8/19/2014.

Date of printing : **8/19/2014.**

Indicates information that has changed from previously issued version.

Notice to reader

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. Afton makes no representation as to completeness or accuracy. In no event will Afton be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

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*** * * END OF MSDS * * ***