



Safety Data Sheet

HiTEC® 4546 Fuel Additive

SDS no. H4546

Date of issue/Date of revision 3/27/2019

Section 1. Identification

GHS product identifier : HiTEC® 4546 Fuel Additive
Product use : Petrochemical industry: Fuel additive.

In case of emergency - Chemical

+1-703-527-3887 (International)
+1-703-741-5979 (Spanish language)
+1-800-424-9300 (US & Canada)

Manufacturer / Supplier

Afton Chemical Corporation
500 Spring St.
Richmond, VA 23219
USA

Afton Chemical Canada Corporation
5045 South Service Road
Suite 101
Burlington, ON L7L 5Y7
905-631-5470

Non-Emergency Telephone: +1-804-788-5800

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (dermal) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION - Category 1B
SERIOUS EYE DAMAGE - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Fertility) - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Section 2. Hazards identification

Hazard statements

- : Flammable liquid and vapor.
- Harmful in contact with skin or if inhaled.
- Causes severe skin burns and eye damage.
- Suspected of damaging fertility or the unborn child.
- Suspected of causing cancer.
- May be fatal if swallowed and enters airways.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Response

- : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. In case of fire, use water spray (fog), foam, dry chemical or CO₂. In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Storage

- : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

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

Additional hazards

- : Headspace of storage vessel may contain sulfur dioxide.

Section 3. Composition/information on ingredients

Substance/mixture

- : Mixture

Ingredient name	CAS number	Conc. (% w/w)	US GHS Classification
xylene	1330-20-7	≥45 - ≤55	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Solvent naphtha (petroleum), light aromatic	64742-95-6	≥15 - <20	ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN

Section 3. Composition/information on ingredients

Polyalkyl aminic heterocycle	Proprietary	≥10 - ≤15	TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 TOXIC TO REPRODUCTION (Fertility) - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 ASPIRATION HAZARD - Category 1
Benzenesulfonic acid, dodecyl-, branched	68411-32-5	≥5 - ≤10	
ethylbenzene	100-41-4	≥5 - ≤10	
1,2,4-trimethylbenzene	95-63-6	≥5 - ≤10	
dec-1-ene	872-05-9	≥3 - ≤5	
mesitylene	108-67-8	≥1 - ≤3	
cumene	98-82-8	≥0.3 - ≤0.5	
toluene	108-88-3	≥0.1 - ≤0.3	
tetrapropylenebenzene	25265-78-5	≥0.1 - ≤0.3	

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation. If specific chemical identify is withheld, it is to protect confidentiality.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. If inhaled, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 15 minutes.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes severe burns. Harmful in contact with skin.
- Ingestion** : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Warning! Headspace of storage vessel may contain sulfur dioxide. Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
xylene	ACGIH TLV (United States, 3/2017). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 6/2016). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours.
ethylbenzene	ACGIH TLV (United States, 3/2017). TWA: 20 ppm 8 hours. OSHA PEL (United States, 6/2016). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours.
1,2,4-trimethylbenzene	ACGIH TLV (United States, 3/2017). TWA: 25 ppm 8 hours. TWA: 123 mg/m ³ 8 hours.
dec-1-ene	AIHA WEEL (United States, 10/2011). TWA: 100 ppm 8 hours.
mesitylene	ACGIH TLV (United States, 3/2017). TWA: 25 ppm 8 hours. TWA: 123 mg/m ³ 8 hours.
cumene	ACGIH TLV (United States, 3/2017). TWA: 50 ppm 8 hours. OSHA PEL (United States, 6/2016). Absorbed through skin. TWA: 50 ppm 8 hours. TWA: 245 mg/m ³ 8 hours.
toluene	OSHA PEL Z2 (United States, 2/2013). TWA: 200 ppm 8 hours. CEIL: 300 ppm AMP: 500 ppm 10 minutes. ACGIH TLV (United States, 3/2017). TWA: 20 ppm 8 hours.

Appropriate engineering controls

: 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.

Section 8. Exposure controls/personal protection

Environmental exposure controls	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measures	
Hygiene measures	: 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.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Clear. Gold. Yellow. to Red. Amber.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Closed cup: 25°C (77°F) [Pensky-Martens. Minimum]
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Density	: 0.91 g/cm ³
Relative density	: 0.9107

Section 9. Physical and chemical properties

Solubility	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C): 0.1009 cm ² /s
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products	: Sulfur dioxide

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Test	Result	Species	Dose	Exposure	Remarks
xylene	403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat	29 mg/l	4 hours	-
	None available.	LD50 Dermal	Rabbit	12126 mg/kg	-	Based upon data for a similar product.
	401 Acute Oral Toxicity	LD50 Oral	Rat	3523 mg/kg	-	-
Solvent naphtha (petroleum), light aromatic	403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat	>7.63 mg/l	4 hours	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	-	LD50 Oral	Rat	2900 mg/kg	-	-
Polyalkyl aminic heterocycle	-	LD50 Oral	Rat	5000 mg/kg	-	-
	423 Acute Oral toxicity - Acute Toxic Class Method	LD50 Oral	Rat	>2000 mg/kg	-	-
	-	LD50 Oral	Rat	>2000 mg/kg	-	-
1,2,4-trimethylbenzene	-	LC50 Inhalation Vapor	Rat	>10200 mg/m ³	4 hours	Based on data for a similar substance.
	-	LD50 Dermal	Rabbit	3160 mg/kg	-	-
	None available.	LD50 Dermal	Rat	>3440 mg/kg	-	Based on data for a similar substance.

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Benzenesulfonic acid, dodecyl-, branched	-	LD50 Oral	Rat	5000 mg/kg	-	-
	-	LD50 Oral	Rat	3400 to 6000 mg/kg	-	-
dec-1-ene	None available.	LD50 Dermal	Rabbit	>4199 mg/kg	-	Based upon data for a similar product.
	None available.	LD50 Oral	Rat	300 to 2000 mg/kg	-	Based upon data for a similar product.
mesitylene	403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat	>2.1 mg/l	4 hours	Based upon data for a similar product.
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>10000 mg/kg	-	-
propylbenzene	420 Acute Oral Toxicity - Fixed Dose Method	LD50 Oral	Rat	>5600 mg/kg	-	Based upon data for a similar product.
	-	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours	-
ethylbenzene	None available.	LD50 Dermal	Rat	>2000 mg/kg	-	Based upon data for a similar product.
	401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	-	Based upon data for a similar product.
cumene	None available.	LD50 Oral	Rat	6040 mg/kg	-	-
	None available.	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours	-
tetrapropylenebenzene	None available.	LD50 Dermal	Rabbit	15400 mg/kg	-	-
	None available.	LD50 Oral	Rat	3500 mg/kg	-	-
	-	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours	-
	None available.	LC50 Inhalation Vapor	Rat	40 mg/l	4 hours	-
	-	LD50 Dermal	Rabbit	10578 mg/kg	-	-
	-	LD50 Oral	Mouse	12750 mg/kg	-	-
	-	LD50 Oral	Rat	1400 mg/kg	-	-
	None available.	LD50 Dermal	Rat	>2000 mg/kg	-	-
	None available.	LD50 Oral	Rat	5000 mg/kg	-	-

Conclusion/Summary : Harmful by inhalation or in contact with skin. May be harmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result	Remarks
xylene	None available.	Rabbit	Skin - Irritant	-
Solvent naphtha (petroleum), light aromatic	None available.	Rabbit	Eyes - Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Mild irritant	-
Benzenesulfonic acid, dodecyl-, branched	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Mild irritant	-
	None available.	Rabbit	Skin - Severe irritant	Based on data for a similar substance.
ethylbenzene	None available.	Rabbit	Eyes - Severe irritant	Based on data for a similar substance.
	None available.	Rabbit	Skin - Moderate irritant	-
1,2,4-trimethylbenzene	None available.	Guinea pig	Eyes - Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	Based on data for a similar substance.
dec-1-ene	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Mild irritant	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	Based on data for a similar substance.
	404 Acute Dermal	Rabbit	Skin - Mild irritant	Based on data for a

Section 11. Toxicological information

mesitylene	Irritation/Corrosion 405 Acute Eye Irritation/Corrosion 404 Acute Dermal Irritation/Corrosion 405 Acute Eye Irritation/Corrosion 404 Acute Dermal Irritation/Corrosion	Rabbit Rabbit Rabbit Rabbit	Eyes - Mild irritant Skin - Irritant Eyes - Irritant Skin - Mild irritant	similar substance. Based on data for a similar substance. -
cumene	None available.	Rabbit	Eyes - Mild irritant	-
toluene	None available.	Rabbit	Skin - Irritant	-
	405 Acute Eye Irritation/Corrosion 404 Acute Dermal Irritation/Corrosion	Rabbit Rabbit	Eyes - Mild irritant Eyes - Mild irritant	-
tetrapropylenebenzene	None available.	Rabbit	Skin - Irritant	-
	None available.	Rabbit	Eyes - Mild irritant	-

Conclusion/Summary

Skin : Causes severe skin burns and eye damage.

Eyes : Causes serious eye damage.

Respiratory : May cause respiratory irritation.

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result	Remarks
xylene	429 Skin Sensitization: Local Lymph Node Assay	skin	Mouse	Not sensitizing	-
Solvent naphtha (petroleum), light aromatic	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
1,2,4-trimethylbenzene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
dec-1-ene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
mesitylene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
cumene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
toluene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-

Conclusion/Summary

Skin : Not available.

Respiratory : Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
xylene	471 Bacterial Reverse Mutation Test None available.	Experiment: In vitro Subject: Bacteria	Negative	-
		Experiment: In vitro Subject: Mammalian-Animal	Negative	-
Solvent naphtha (petroleum), light aromatic	471 Bacterial Reverse Mutation Test None available.	Experiment: In vitro Subject: Bacteria	Negative	-
		Experiment: In vitro Subject: Mammalian-Animal	Negative	-
ethylbenzene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Equivocal	WOE does not support

Section 11. Toxicological information

1,2,4-trimethylbenzene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	classification
dec-1-ene	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
mesitylene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
cumene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	None available.	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Equivocal	-
toluene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-

Conclusion/Summary : Not available.

Carcinogenicity **Result**

Product/ingredient name	Test	Species	Exposure	Result	Remarks
xylene	None available.	Rat	103 weeks; 5 days per week	Negative - Oral	-
ethylbenzene	453 Combined Chronic Toxicity/ Carcinogenicity Studies	Mouse	2 years; 5 days per week	Positive - Route of exposure unreported	-
cumene	451 Carcinogenicity Studies	Rat	105 weeks; 6 hours per day	Positive - Route of exposure unreported	-
toluene	None available.	Mouse	24 months; 2 days per week	Negative - Dermal	-
	453 Combined Chronic Toxicity/ Carcinogenicity Studies	Rat	2 years; 6.5 hours per day	Negative - Route of exposure unreported	-

Conclusion/Summary : The classification of this product is based on the concentration of the carcinogenic substance present: Cumene
Suspected of causing cancer. Refer to Section 2.

Classification

Product/ingredient name	OSHA	IARC	NTP
xylene	-	3	-
ethylbenzene	-	2B	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
toluene	-	3	-

Reproductive toxicity

Section 11. Toxicological information

Product/ingredient name	Test	Route of exposure	Species	Maternal toxicity	Fertility	Development toxin	Remarks
xylene	None available.	Inhalation	Rat - Male	Positive	Equivocal	Negative	WOE does not support classification
Solvent naphtha (petroleum), light aromatic	421 Reproduction/ Developmental Toxicity Screening Test	Inhalation	Rat	Negative	Negative	Negative	-
ethylbenzene	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Negative	-
1,2,4-trimethylbenzene	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Negative	Based on data for a similar substance.
dec-1-ene	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Oral	Rat - Female	Negative	Negative	Negative	Based on data for a similar substance.
mesitylene	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Negative	Based on data for a similar substance.
cumene	413 Subchronic Inhalation Toxicity: 90-day Study	Inhalation	Rat	Positive	Negative	Negative	-
toluene	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Negative	Negative	Positive	-
tetrapropylenebenzene	None available. 421 Reproduction/ Developmental Toxicity Screening Test	Inhalation Oral	Rat Rat	Equivocal Positive	Equivocal Positive	Positive Positive	- -

Conclusion/Summary : Suspected of damaging fertility or the unborn child.

Teratogenicity

Product/ingredient name	Test	Species	Result	Remarks
xylene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Route of exposure unreported	-
Solvent naphtha (petroleum), light aromatic	414 Prenatal Developmental Toxicity Study	Rat	Negative - Route of exposure unreported	-
ethylbenzene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Route of exposure unreported	-
1,2,4-trimethylbenzene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Route of exposure unreported	-
mesitylene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Route of exposure unreported	-
cumene	414 Prenatal Developmental Toxicity Study	Rabbit	Negative - Route of exposure	-

Section 11. Toxicological information

toluene	None available.	Rat	unreported Positive - Route of exposure	-
	None available.	Rat	unreported Negative - Route of exposure	-
			unreported	

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	Not applicable.	Respiratory tract irritation
Solvent naphtha (petroleum), light aromatic	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
1,2,4-trimethylbenzene	Category 3	Not applicable.	Respiratory tract irritation
mesitylene	Category 3	Not applicable.	Respiratory tract irritation
propylbenzene	Category 3	Not applicable.	Respiratory tract irritation
cumene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 2	Not determined	Not determined
ethylbenzene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
dec-1-ene	ASPIRATION HAZARD - Category 1
mesitylene	ASPIRATION HAZARD - Category 1
propylbenzene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1
tetrapropylenebenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Skin, Eyes, Ingestion, and Inhalation

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Harmful if inhaled. May cause respiratory irritation.

Skin contact : Causes severe burns. Harmful in contact with skin.

Ingestion : May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Section 11. Toxicological information

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Test	Species	Dose	Exposure	Result	Remarks
xylene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents None available.	Rat	150 mg/kg	-	Sub-chronic LOAEL Oral	-
		Rat	3.515 mg/l	13 weeks	Sub-chronic NOAEL Inhalation Vapor	-
Solvent naphtha (petroleum), light aromatic	None available.	Rat	500 mg/kg	-	Sub-acute NOAEL Oral	-
		Rat	1.402 mg/l	90 days	Sub-chronic NOAEL Inhalation Vapor	-
ethylbenzene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	75 mg/kg	-	Sub-chronic NOAEL Oral	-
1,2,4-trimethylbenzene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	600 mg/kg	-	Sub-chronic NOAEL Oral	-
	452 Chronic Toxicity Studies	Rat	1800 mg/m ³	12 months	Chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
dec-1-ene	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	10.326 mg/l	13 weeks	Sub-chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
mesitylene	408 Repeated Dose	Rat	600 mg/kg	-	Sub-chronic	-

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	90-Day Oral Toxicity Study in Rodents				NOAEL Oral	
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	1.23 mg/l	3 months	Sub-chronic NOAEL Inhalation Vapor	-
cumene	None available.	Rat	22.8 mg/kg	-	Sub-chronic LOAEL Oral	-
toluene	None available.	Rat	625 mg/kg	-	Sub-chronic NOAEL Oral	-
	453 Combined Chronic Toxicity/ Carcinogenicity Studies	Rat	2.261 mg/l	15 months	Chronic LOAEL Inhalation Vapor	-
tetrapropylenebenzene	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Rat	25 mg/kg	-	Sub-acute NOAEL Oral	-

Conclusion/Summary	: Not available.
General	: May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: Suspected of damaging the unborn child.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: Suspected of damaging fertility.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	Remarks
xylene	Acute EC50 4.36 mg/l	Algae - Pseudokirchneriella subcapitata	73 hours	Based upon data for a similar product.
	Acute EC50 >3.4 mg/l	Daphnia - Ceriodaphnia dubia	48 hours	Based upon data for a similar product.
	Acute EL50 >157 mg/l	Micro-organism	3 hours	Based upon data for a similar product.
	Acute LC50 2.6 mg/l	Fish - Oncorhynchus mykiss	96 hours	Based upon data for a similar product.
	Chronic EC10 1.9 mg/l	Algae - Pseudokirchneriella subcapitata	73 hours	Based upon data for a similar product.
	Chronic EC10 1.91 mg/l	Daphnia - Daphnia magna	21 days	-
	Chronic NOEC >1.3 mg/l	Fish - Oncorhynchus mykiss	56 days	-
	Acute EL50 3.1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
Solvent naphtha (petroleum), light aromatic	Acute EL50 4.5 mg/l	Daphnia - Daphnia magna	48 hours	Based upon data

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Polyalkyl aminic heterocycle	Acute LL50 8.2 mg/l	Fish - Pimephales promelas	96 hours	for a similar product. Based upon data for a similar product.
	Chronic NOEC 0.4 mg/l	Daphnia - Daphnia magna	21 days	Based upon data for a similar product.
	Chronic NOEL 0.5 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Chronic NOEL 2.6 mg/l	Fish - Pimephales promelas	14 days	Based upon data for a similar product.
1,2,4-trimethylbenzene	Acute EL50 4 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EL50 42 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LL50 >100 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic NOEL 1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
Benzenesulfonic acid, dodecyl-, branched	Acute LC50 3.6 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 7.72 mg/l	Fish - Pimephales promelas	96 hours	-
	Acute EL50 82 mg/l	Algae - Scenedesmus subspicatus	72 hours	Based upon data for a similar product.
	Acute EL50 2.5 mg/l	Daphnia - Daphnia magna	48 hours	Based upon data for a similar product.
dec-1-ene	Acute LL50 22 mg/l	Fish - Pimephales promelas	96 hours	Based upon data for a similar product.
	Chronic NOEC 0.3 mg/l	Daphnia - Daphnia magna	21 days	Based upon data for a similar product.
	Chronic NOEC 0.62 mg/l	Fish - Oncorhynchus mykiss	28 days	Based upon data for a similar product.
	Acute EC50 1 to 1.8 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
mesitylene	Acute EL50 0.56 to 1 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute EL50 >1000 mg/l	Micro-organism	3 hours	-
	Acute LC50 0.12 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic NOEC 0.0194 mg/l	Daphnia - Daphnia magna	21 days	-
propylbenzene	Acute EL50 25 mg/l	Algae - Desmodesmus subspicatus	48 hours	-
	Acute LL50 6 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LL50 12.52 mg/l	Fish - Carassius auratus	96 hours	-
	Chronic EL10 8.1 mg/l	Algae - Desmodesmus subspicatus	48 hours	-
ethylbenzene	Chronic NOEC 0.4 mg/l	Daphnia - Daphnia magna	21 days	-
	Acute EC50 1800 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EC50 2 mg/l	Daphnia - Daphnia magna	24 hours	-
	Acute LC50 1550 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours	-
	Acute EC50 3.6 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours	-
	Acute EC50 1.8 mg/l	Daphnia - Daphnia magna	48 hours	-

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cumene	Acute EC50 96 mg/l	Micro-organism	24 hours	-
	Acute LC50 4.2 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic NOEC 3.4 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours	-
	Chronic NOEL 0.96 mg/l	Daphnia - Ceriodaphnia dubia	7 days	-
	Acute EC50 2.01 mg/l	Algae - Desmodesmus subspicatus	72 hours	-
	Acute EC50 2.14 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute EL50 >2000 mg/l	Micro-organism	3 hours	-
	Acute LC50 4.8 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic EC10 1.35 mg/l	Algae - Desmodesmus subspicatus	72 hours	-
	Chronic NOEC 0.35 mg/l	Daphnia - Daphnia magna	21 days	QSAR result.
tetrapropylenebenzene	Chronic NOEC 0.38 mg/l	Fish - D. rerio and P. promelas	28 days	QSAR result.
	Acute EL50 >1000 mg/l	Micro-organism	3 hours	-

Conclusion/Summary : Toxic to aquatic life with long lasting effects.

Persistence and degradability

Product/ingredient name	Test	Result	Remarks
xylene	OECD 301F Ready Biodegradability - Manometric Respirometry Test	87.8 % - Readily - 28 days	Based on data for a similar substance.
ethylbenzene	-	70 to 80 % - Readily - 28 days	-
mesitylene	-	42 % - Not readily - 28 days	-
cumene	-	70 % - Readily - 20 days	-
toluene	-	80 % - Readily - 20 days	-
tetrapropylenebenzene	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	18 % - Not readily - 28 days	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
Polyalkyl aminic heterocycle	-	-	Not readily
1,2,4-trimethylbenzene	-	-	Inherent
Benzenesulfonic acid, dodecyl-, branched	-	-	Not readily
mesitylene	-	-	Not readily
propylbenzene	-	-	Not readily
ethylbenzene	-	-	Readily
cumene	-	-	Readily
tetrapropylenebenzene	-	-	Not readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
xylene	3.12	8.1 to 25.9	low
Solvent naphtha (petroleum), light aromatic	-	10 to 2500	high
ethylbenzene	3.6	-	low
1,2,4-trimethylbenzene	3.63	243	low
dec-1-ene	5.12	3.65	low
mesitylene	3.42	161	low
cumene	3.55	35.48	low
toluene	2.73	90	low
tetrapropylenebenzene	8.11	-	high








Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Xylene	1330-20-7	Listed	U239

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1993	FLAMMABLE LIQUID, N.O. S.(Xylene, Petroleum distillates)	3	III		
TDG Classification	UN1993	FLAMMABLE LIQUID, N.O. S.(Xylene, Petroleum distillates)	3	III	 	
IMDG Class	UN1993	FLAMMABLE LIQUID, N.O. S.(Xylene, Petroleum distillates) Marine pollutant	3	III	 	Remarks Marine pollutant
IATA-DGR Class	UN1993	FLAMMABLE LIQUID, N.O. S. (Xylene, Petroleum distillates)	3	III	 	-

Notice to reader

Section 14. Transport information

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

Section 15. Regulatory information

U.S. Federal regulations :

[SARA 302/304](#)

[Composition/information on ingredients](#)

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Sulphur dioxide	≥0.1 - ≤0.3	Yes.	500	-	500	-
Sulfuric acid	≤0.1	Yes.	1000	66.3	1000	66.3

[SARA 311/312](#)

Classification

: FLAMMABLE LIQUIDS - Category 3
 ACUTE TOXICITY (dermal) - Category 4
 ACUTE TOXICITY (inhalation) - Category 4
 SKIN CORROSION - Category 1B
 SERIOUS EYE DAMAGE - Category 1
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION (Fertility) - Category 2
 TOXIC TO REPRODUCTION (Unborn child) - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
 ASPIRATION HAZARD - Category 1

[Composition/information on ingredients](#)

Name	%	Classification
xylene	≥45 - ≤55	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	≥15 - <20	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1
Polyalkyl aminic heterocycle	≥10 - ≤15	HNOC - Static-accumulating flammable liquid SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
Benzenesulfonic acid, dodecyl-, branched	≥5 - ≤10	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
ethylbenzene	≥5 - ≤10	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED

Section 15. Regulatory information

1,2,4-trimethylbenzene	≥5 - ≤10	EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
dec-1-ene	≥3 - ≤5	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 ASPIRATION HAZARD - Category 1
mesitylene	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
cumene	≥0.3 - ≤0.5	ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 3 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
toluene	≥0.1 - ≤0.3	ASPIRATION HAZARD - Category 1 FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
tetrapropylenebenzene	≥0.1 - ≤0.3	ASPIRATION HAZARD - Category 1 TOXIC TO REPRODUCTION (Fertility) - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 ASPIRATION HAZARD - Category 1

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	xylene	1330-20-7	≥45 - ≤55
	ethylbenzene	100-41-4	≥5 - ≤10
	1,2,4-trimethylbenzene	95-63-6	≥5 - ≤10
Supplier notification	xylene	1330-20-7	≥45 - ≤55
	ethylbenzene	100-41-4	≥5 - ≤10
	1,2,4-trimethylbenzene	95-63-6	≥5 - ≤10

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

RQ (Reportable quantity) : CERCLA: Hazardous substances.: xylene: 100 lbs. (45.4 kg); cumene: 5000 lbs. (2270 kg); benzene: 10 lbs. (4.54 kg); ethylbenzene: 1000 lbs. (454 kg); toluene: 1000 lbs. (454 kg); Sulfuric acid: 1000 lbs. (454 kg);

United States - TSCA 12(b) - Chemical export notification

List name

Status

Name on list

Ref. number

None of the components are listed.

State - California Prop. 65

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

WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Section 15. Regulatory information

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Cumene	≥0.3 - ≤0.5	Yes.	No.	-	-
Benzene	<0.1	Yes.	Yes.	Yes.	Yes.
Sulphur dioxide	≥0.1 - ≤0.3	No.	Yes.	-	-
Ethylbenzene	≥5 - ≤10	Yes.	No.	Yes.	-
Toluene	≥0.1 - ≤0.3	No.	Yes.	-	Yes.
Sulfuric acid	≤0.1	Yes.	No.	-	-

Canadian regulations

- Canadian NPRI** : The following components are listed: Light aromatic solvent naphtha; 1,2, 4-Trimethylbenzene; Trimethylbenzene; Xylene (all isomers); Ethylbenzene
- CEPA Toxic substances** : None of the components are listed.

International Inventory Status

- Australia** : At least one component is not listed.
- Canada** : All components are listed or exempted.
- China** : At least one component is not listed.
Notified. Please contact your supplier for information on the inventory status of this material.
- Japan** : At least one component is not listed.
- Republic of Korea** : At least one component is not listed.
Notified. Please contact your supplier for information on the inventory status of this material.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.
- Taiwan** : All components are listed or exempted.
- United States** : All components are listed or exempted.
- Europe** : For information on compliance with regulation (EC) No. 1907/2006 (REACH) and amendments please contact your Afton representative.

Section 16. Other information

History

- Date of issue/Date of revision** : 3/27/2019
- Prepared by** : EHS Department (Tel: +1 804 788 5800)
- Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations
WOE = Weight of Evidence

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.