OTR® 8843QG

Safety Data Sheet

SDS no. OTR 8843QG

Section 1. Identification

GHS product identifier : OTR® 8843QG

Product use : Petrochemical industry: Diesel 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

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Richmond,
VA 23219
USA
Tel: +1-804-788-5800

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Bedford Park, IL 60638, USA
Tel: (708) 458-8450

Afton Chemical Canada
P.O. Box 130
Coranna, Canada N0N1G0

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
CARCINOGENICITY - Category 2
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

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 30.1%

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Flammable liquid and vapor.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness and dizziness.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. 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. Avoid breathing vapor.

Response : IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. In case of fire, use water spray (fog), foam, dry chemical or CO_2.

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.

Section 2. Hazards identification

Additional hazards : When heated above 100°C/212°F may undergo a self-accelerating, exothermic reaction which causes a rapid rise in temperature and pressure. Rupture of storage vessels and fire should be anticipated in case of such temperature.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	CAS number	Conc. (% w/w)	US GHS Classification
Solvent naphtha (petroleum), heavy aromatic	64742-94-5	30 - 60	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	64742-95-6	30 - 60	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
Benzene, 1,2,4-trimethyl-	95-63-6	10 - 19.9	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
2-Ethylhexyl nitrate	27247-96-7	10 - 19.9	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4
Propanol, 1(or 2)-(2-methoxymethylethoxy)	34590-94-8	5 - 9.9	Not classified.
Benzene, 1,3,5-trimethyl-	108-67-8	5 - 9.9	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
n-Propylbenzene	103-65-1	1 - 4.9	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
Naphthalene	91-20-3	1 - 4.9	ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 2
Xylene	1330-20-7	1 - 4.9	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Cumene	98-82-8	1 - 4.9	FLAMMABLE LIQUIDS - Category 3 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN

Section 3. Composition/information on ingredients

			TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 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. Get medical attention.

Inhalation : 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. Get medical attention. If necessary, call a poison center or physician. 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 15 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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. 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 : No known significant effects or critical hazards.

Inhalation : May cause drowsiness and dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : May cause drowsiness and dizziness. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Inhalation of vapors may cause a sharp decrease in blood pressure with resulting loss of consciousness.

Skin contact : Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

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.

Section 4. First aid measures

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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

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

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. When heated above 100°C/212°F may undergo a self-accelerating, exothermic reaction which causes a rapid rise in temperature and pressure. Rupture of storage vessels and fire should be anticipated in case of such temperature. Spray storage vessels with water to maintain temperature below 100°C/212°F.

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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised 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 : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. 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. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. A vapor recovery system should be used when packaging this product. Wash thoroughly after handling. Do not heat the product.

Product Transfer : Do not heat the product. Prior to starting transfer pump, ensure all valves in the product discharge line are open and that the line is unobstructed. Immediately after starting the transfer pump, verify that the product is flowing. If product is not flowing, shut the pump off immediately. Operating the transfer pump in a dead-headed (blocked) condition without product flow can result in an explosion damaging equipment and causing personal injury. A pneumatic driven diaphragm pump or pumps of other designs equipped with high temperature (75 degs. C) shut-off devices are recommended when pumps are provided at fixed locations.

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.

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. Do not heat the product. Warehouses equipped with fire suppression systems are recommended. This product should not be stored in the same area with tanks containing flammable liquids. Fire suppression systems should be adequate to keep product cool in the event of a fire.
Refer to "Safety and Handling Manual for 2-Ethylhexyl Nitrate" for further information on safety and handling concerns and procedures (available from Afton Corporation).

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy aromatic	**OSHA (United States).** TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.
Benzene, 1,2,4-trimethyl-	**ACGIH (United States, 1999).** TWA: 25 ppm
2-Ethylhexyl nitrate	**Afton (United States).** TWA: 1 ppm 8 hours.
Propanol, 1(or 2)-(2-methoxymethylethoxy)-	**ACGIH TLV (United States). Absorbed through skin.** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **OSHA PEL Z2 (United States). Absorbed through skin.** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.
Benzene, 1,3,5-trimethyl-	**ACGIH (United States, 1999).** TWA: 25 ppm
Naphthalene	**ACGIH TLV (United States). Absorbed through skin.** TWA: 10 ppm

Section 8. Exposure controls/personal protection

Xylene	**OSHA PEL (United States).** TWA: 10 ppm **ACGIH (United States, 1996).** TWA: 100 ppm STEL: 150 ppm **OSHA (United States).** TWA: 100 ppm
Cumene	**ACGIH (United States, 1994). Absorbed through skin.** TWA: 50 ppm **OSHA (United States, 1989). Absorbed through skin.** TWA: 50 ppm

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.

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: safety glasses with side-shields.

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 : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Amber. [Light]

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Closed cup: 49°C (120.2°F) [Pensky-Martens. Minimum]

Section 9. Physical and chemical properties

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 : 0.92 g/cm³ [60.1°F (15.6°C)]

Relative density : 0.9198

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : 3 cSt at 40°C

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Unstable at temperatures greater than 100°C/212°F.

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 : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy aromatic	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2500 mg/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Oral	Rat	2900 mg/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
Benzene, 1,2,4-trimethyl-	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Dermal	Rabbit	3160 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
2-Ethylhexyl nitrate	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>10000 mg/kg	-
Propanol, 1(or 2)-(2-methoxymethylethoxy)	LC50 Inhalation Gas.	Rat	>275 ppm	7 hours
	LD50 Dermal	Rabbit	9500 mg/kg	-
	LD50 Oral	Rat	5135 mg/kg	-
Benzene, 1,3,5-trimethyl-	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
n-Propylbenzene	LD50 Oral	Rat	6040 mg/kg	-
Naphthalene	LD50 Dermal	Rat	>2500 mg/kg	-
	LD50 Oral	Rat	2600 mg/kg	-
Xylene	LC50 Inhalation Vapor	Rat	5000 to 8500 ppm	4 hours
	LD50 Dermal	Rabbit	>14100 mg/kg	-
	LD50 Oral	Rat - Male	3523 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
Cumene	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours

Section 11. Toxicological information

	LD50 Dermal LD50 Oral LD50 Oral	Rabbit Mouse Rat	10578 mg/kg 12750 mg/kg 1400 mg/kg	- - -

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary

Skin : Not available.

Eyes : Not available.

Respiratory : Not available.

Sensitization

Conclusion/Summary

Skin : Not available.

Respiratory : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product / ingredient name	OSHA	IARC	NTP
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Xylene	-	3	-
Cumene	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy aromatic	Category 3	Not applicable.	Narcotic effects
Solvent naphtha (petroleum), light aromatic	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Benzene, 1,2,4-trimethyl-	Category 3	Not applicable.	Respiratory tract irritation
Benzene, 1,3,5-trimethyl-	Category 3	Not applicable.	Respiratory tract irritation
Propyl benzene	Category 3	Not applicable.	Respiratory tract irritation
Xylene	Category 3	Not applicable.	Respiratory tract irritation
Cumene	Category 3	Not applicable.	Respiratory tract irritation

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy aromatic	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
Propyl benzene	ASPIRATION HAZARD - Category 1
Cumene	ASPIRATION HAZARD - Category 1

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

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : May cause drowsiness and dizziness. May cause respiratory irritation.

Skin contact : No known significant effects or critical hazards.

Ingestion : May cause drowsiness and dizziness. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Section 11. Toxicological information

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Inhalation of vapors may cause a sharp decrease in blood pressure with resulting loss of consciousness.

Skin contact : Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

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

Conclusion/Summary : - Adverse symptoms may include the following:: In the presence of slight maternal toxicity, fetotoxic effects have been observed in the offspring of rats exposed by inhalation to Solvent Naphtha (petroleum) light aromatic.
- Adverse symptoms may include the following:: This product contains trimethylbenzene. Literature data indicate that long-term inhalation exposure causes blood effects in laboratory animals.
- Adverse symptoms may include the following:: Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.
- Adverse symptoms may include the following:: Symptoms of over-exposure to vapors include drowsiness, weakness, headache, dizziness, and nausea.
- Adverse symptoms may include the following:: This product contains naphthalene. Naphthalene exposure may cause severe dermatitis in sensitized persons. Ingestion of naphthalene has caused hemolysis in humans deficient in glucose-6-phosphate dehydrogenase. Adverse effects could include liver and kidney abnormalities and corneal ulcerations and cataracts This product contains naphthalene. A National Toxicology Program (NTP) final report states that lifetime inhalation exposure to naphthalene resulted in increases in nose tumors in rats and lung tumors in female mice.
- Adverse symptoms may include the following:: Central nervous system, liver, kidneys, 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 vapor has caused occupational skin sensitization in humans. When exposed to 1800 ppm Xylene vapor, rats experienced hearing deficits to mid-frequency range tones.

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Persistence and degradability

Product / ingredient name	Aquatic half-life	Photolysis	Biodegradability
Solvent naphtha (petroleum), heavy aromatic	-	-	Inherent
Propanol, 1(or 2)-(2-methoxymethylethoxy)	-	-	Readily
Naphthalene	-	-	Inherent
Xylene	-	-	Readily

Bioaccumulative potential

Not available.

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.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	NA1993	Combustible liquid, n.o.s. (2-Ethylhexyl nitrate, Petroleum Distillates). Marine pollutant (2-Ethylhexyl nitrate)	Combustible liquid.	III		- Marine pollutant
TDG Classification	UN1993	Flammable liquid, n.o.s. (Xylene, Petroleum distillates) Marine pollutant (2-ethylhexyl nitrate)	3	III		-
IMDG Class	UN1993	Flammable liquid, n.o.s. (Xylene, Petroleum distillates). Marine pollutant (2-ethylhexyl nitrate)	3	III		-
IATA-DGR Class	UN1993	Flammable liquid, n.o.s. (Xylene, Petroleum distillates) Marine pollutant (2-ethylhexyl nitrate)	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.

Section 15. Regulatory information

US regulations

SARA 313 toxic chemical notification and release reporting (w/w%) :

Benzene, 1,2,4-trimethyl-	10 - 19.9
Naphthalene	1 - 4.9
Xylene	1 - 4.9
Cumene	1 - 4.9
Ethylbenzene	0.1 - 0.5
Benzo[a]pyrene	0 - 0.0001

SARA 311/312 Hazardous Categorization : **SARA 311/312 Hazards identification**: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

RQ (Reportable quantity) : CERCLA: Hazardous substances.: Benzene: 10 lbs. (4.54 kg); Xylene: 100 lbs. (45.4 kg); Toluene: 1000 lbs. (454 kg); Naphthalene: 100 lbs. (45.4 kg); Benzo[a]pyrene: 1 lb. (0.454 kg); Ethylbenzene: 1000 lbs. (454 kg); Cumene: 5000 lbs. (2270 kg); Styrene: 1000 lbs. (454 kg); p-Xylene: 100 lbs. (45.4 kg); NITRIC ACID: 1000 lbs. (454 kg); VINYL ACETATE: 5000 lbs. (2270 kg);

EPA Significant New Use Rule (SNUR) : This product contains a substance that has been issued a non-5(e) Significant New Use Rule SNUR under 40 CFR Section 721.10576. Those who manufacture, import or process this substance must maintain records to whom they directly sell or transfer this product. Those records include the names and addresses (including shipment destination address, if different), the date of each sale or transfer, and the quantity of the substance sold or transferred on such date. This substance is limited to use as a Dispersant for Lubricating Oils, Detergent in diesel fuel for marine, mining, on-road heavy duty diesel and agricultural equipment and Detergent for use in Diesel Fuel Terminals.

State - California Prop. 65 : This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute:
Naphthalene
Cumene
Ethylbenzene
Toluene
Benzene
Benzo[a]pyrene

Canadian regulations

HMIRA Registry Number : Not available.

Canada Significant New Activity Notice : This product contains a substance that is the subject of a Significant New Activity (SNAc) notice under CEPA.

International Inventory Status

United States inventory (TSCA 8b)	All components are listed or exempted.
Canada inventory	At least one component is not listed.
Europe inventory	All components are listed or exempted.
Japan inventory (ENCS)	At least one component is not listed.
Australia inventory (AICS)	At least one component is not listed.
Korea inventory (KECI)	At least one component is not listed.
China inventory (IECSC)	At least one component is not listed.
Philippines inventory (PICCS)	At least one component is not listed.
New Zealand Inventory of Chemicals (NZIoC)	Not determined.
Taiwan inventory (CSNN)	Not determined.

Section 16. Other information

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

Health	2
Flammability	2
Physical hazards	1

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

History

Date of issue/Date of revision : 2/23/2016.

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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

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.