

# SAFETY DATA SHEET



## ARCTIC BLUE Synthetic Blend 2-Cycle Motor Oil

### Section 1. Identification

**GHS product identifier** : Arctic Blue Synthetic Blend 2-Cycle Motor Oil  
**Synonyms** : 2-Cycle Motor Oil  
**Product Code** : 4080

#### Relevant identified uses of the substance or mixture and uses advised against

**Recommended use** : Lubricating Oil  
**Supplier Details** : Allied Oil & Supply, Inc.  
2209 S 29<sup>th</sup> St.  
Omaha, NE 68108

**Emergency telephone number** : Technical Contact: 800-962-5417  
National Poison Center: 800-222-1222, CHEMTREC 800-424-9300

### Section 2. Hazard 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 4  
CARCINOGENICITY - Category 2  
ASPIRATION HAZARD - Category 1

#### GHS Label elements

**Hazard pictograms** :



**Signal word** : Danger.  
**Hazard statements** : Combustible liquid.  
Suspected of causing cancer.  
May be fatal if swallowed and enters airways.

#### Precautionary statements

**General** : Avoid contact with eyes, skin and clothing. May be harmful if swallowed. IF IN EYES: Rinse cautiously with water for several minutes. IF SWALLOWED: DO NOT induce vomiting. After handling, always wash hands thoroughly with soap and water. Keep out of reach of children.

**Prevention** : Wear protective gloves. Wear eye or face protection. Keep away from flames and hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling.

**Response** : 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 ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention.

**Storage** : Store locked up. Store in a well-ventilated place. Keep cool. Store in dry place and/or in closed container. Store in accordance with all local, regional, national and international regulations.

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

**Hazards not otherwise classified** : Not Classified

### Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of Identification** : 2-Cycle Oil

Ingredient name	%	CAS number
Kerosene	< 30	8008-20-6
Naphthalene	0.1 - 1	91-20-3

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

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

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

### Section 4. First aid measures

#### Description of necessary first aid measures

- Eye** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that gas or vapor is 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.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or 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

##### Potential acute health effects

- Eye** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

**Over-exposure signs/symptoms**

**Eye** : Adverse symptoms may include the following: pain or irritation, watering, redness.

**Inhalation** : Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue dizziness/vertigo, unconsciousness.

**Skin contact** : Adverse symptoms may include the following: irritation, redness.

**Ingestion** : No known significant effects of critical hazards.

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

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : Treat symptomatically and supportively.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

**Section 5. Fire-fighting measures**

**Specific hazards arising from the chemical**

: In a fire or if heated, a pressure increase will occur and the container may burst.

**Extinguishing media**

**Suitable extinguishing media** : Use water spray to cool fire exposed surfaces and to protect personnel. Foam, dry chemical or water sprays (fog) to extinguish fire.

**Unsuitable extinguishing media** : Do not use water jet or water-based fire extinguishers.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon dioxide, carbon monoxides, 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. Material floats on water.

**Special protective equipment for fire-fighters**

: Fire-fighters should wear appropriate 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. 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 nonemergency 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).

**Methods and materials for containment and cleaning up**

**Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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. 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).

**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**

: Do not store above the following temperature: 113°C (235.4°F). Odorous and toxic fumes may form from the decomposition of this product if stored at excessive temperatures for extended periods of time. Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Use appropriate containment to avoid environmental contamination.

Bulk Storage Conditions: Maintain all storage tanks in accordance with applicable regulations. Use necessary controls to monitor tank inventories. Inspect all storage tanks on a periodic basis. Test tanks and associated piping for tightness. Maintain the automatic leak detection devices to assure proper working condition.

**Section 8. Exposure controls/personal protection**

**Control parameters**

**Occupational exposure limits** :

Ingredient name	Exposure limits
Kerosene	<b>NIOSH REL (United States, 6/2009).</b> TWA: 100 mg/m <sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 3/2012).</b> Absorbed

<p>Naphthalene</p>	<p><b>through skin.</b> TWA: 200 mg/m<sup>3</sup>, (as total hydrocarbon vapor) 8 hours.  <b>ACGIH TLV (United States, 3/2012). Absorbed through skin.</b>                  STEL: 79 mg/m<sup>3</sup> 15 minutes.                  STEL: 15 ppm 15 minutes.                  TWA: 52 mg/m<sup>3</sup> 8 hours.                  TWA: 10 ppm 8 hours.  <b>NIOSH REL (United States, 6/2009).</b>                  STEL: 75 mg/m<sup>3</sup> 15 minutes.                  STEL: 15 ppm 15 minutes.                  TWA: 50 mg/m<sup>3</sup> 10 hours.                  TWA: 10 ppm 10 hours.  <b>OSHA PEL (United States, 6/2010).</b>                  TWA: 50 mg/m<sup>3</sup> 8 hours.                  TWA: 10 ppm 8 hours.  <b>OSHA PEL 1989 (United States, 3/1989).</b>                  TWA: 10 ppm 8 hours.                  TWA: 50 mg/m<sup>3</sup> 8 hours.                  STEL: 15 ppm 15 minutes.                  STEL: 75 mg/m<sup>3</sup> 15 minutes.</p>
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- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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, vapor controls, 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 glasses equipped with side shields are recommended as minimum protection in industrial settings. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Splash goggles. 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 inhalation hazards exist, a full-face respirator may be required instead.
  - Skin protection**
    - Hand protection** : Chemical-resistant gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 4 - 8 hours (breakthrough time): Nitrile gloves.
    - 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.
    - 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 supplied-air respirator complying with an approved standard if a risk assessment indicates this is necessary. If ventilation is inadequate, use a NIOSH-certified respirator with an organic vapor cartridge and P95 particulate filter.

## Section 9. Physical and chemical properties

**Physical state** : Liquid.  
**Color** : Blue.  
**Odor** : Mild petroleum odor.  
**pH** : Not available.  
**Boiling point** : Not available.  
**Flash point** : Closed cup: >60°C (>140°F)  
**Evaporation rate** : <1 (n-butyl acetate = 1)  
**Lower and upper explosive (flammable) limits** : Lower: Not determined.  
Upper: Not determined.  
**Auto-ignition temperature** : >204.444°C (>400°F)  
**Vapor pressure** : <0.13 kPa (<0.1 mm Hg) [68°F]  
**Vapor density** : >1 [Air = 1]  
**Relative density** : 0.87  
**Solubility** : Insoluble in the following materials: cold water and hot water.  
**Density lbs/gal** : Estimated 7.13 lbs/gal  
**Gravity, °API** : Estimated 33 @ 60°F  
**Viscosity** : Kinematic (room temperature): 0.55 cm<sup>2</sup> /s (55 cSt)

## Section 10. Stability and reactivity

**Reactivity** : Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).  
**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** : No specific data.  
**Incompatible materials** : No specific data.  
**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	4 hours
Kerosene	LD50 Oral	Rat	15 g/kg	-
	LD50 Dermal	Rabbit	>20 g/kg	-
Naphthalene	LD50 Oral	Rat	490 mg/kg	-

**Conclusion/Summary** : **Distillates (petroleum), solvent-refined heavy paraffinic:** Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipid granuloma formation and lipid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects.

**Distillates (petroleum), hydrotreated light:** Mineral spirits have produced slight to moderate skin irritation particularly with evaporation from the skin is prevented. Animal studies have demonstrated that mineral spirits produced mild respiratory tract irritation at elevated concentrations. The most common effects observed in repeated dose animal studies with mineral spirits are kidney changes that are consistent with an alpha 2u-globulin-mediated process that is not regarded as relevant to humans. Certain studies have reported effects in the liver as well as hematological or urine chemistry changes. Abuse of similar materials has been associated with irregular heart rhythms and cardiac arrest. In certain repeated dose animal studies have changes were reported in behavior, neurochemistry and sensory evoked potentials which may be irreversible. Repeated exposure to elevated concentrations of hydrocarbon solvents can produce a variety of transient CNS effects (e.g., dizziness, headache, narcosis, etc).

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kerosene	Skin – Severe irritant	Rabbit	-	500 mg	-
	Skin – Moderate irritant	Rabbit	-	24 hours 100%	-
	Skin – Moderate irritant	Rabbit	-	0.5 mL	-
Naphthalene	Skin – Moderate irritant	Rabbit	-	495 mg	-
	Skin – Severe irritant	Rabbit	-	24 hours 0.05 mL	-
	Skin – Moderate irritant	Rabbit	-		-

**Skin** : No additional information.  
**Eyes** : No additional information.  
**Respiratory** : No additional information.

Sensitization

**Skin** : No additional information.  
**Eyes** : No additional information.  
**Respiratory** : No additional information.

Mutagenicity

**Conclusion/Summary** : No additional information.

Carcinogenicity

Classification

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

**Conclusion/Summary** : **Distillates (petroleum), solvent-refined heavy paraffinic:** In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.

Reproductive toxicity

**Conclusion/Summary** : No additional information.

Teratogenicity

**Conclusion/Summary** : No additional information.

Specific target organ toxicity (single exposure)

**Specific target organ toxicity** : Not available.

(repeated exposure)

**Aspiration hazard** :

Product/ingredient name	Result
Kerosene	ASPIRATION HAZARD – Category 1

**Information on the likely routes of exposure**

: Dermal contact, Eye contact, Inhalation, Ingestion.

**Potential acute health effects**

- Eye** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

- Eye** : Adverse symptoms may include the following: pain or irritation, watering, redness.
- Inhalation** : Adverse symptoms may include the following: nausea or vomiting, headache, drowsiness/fatigue dizziness/vertigo, unconsciousness.
- Skin contact** : Adverse symptoms may include the following: pain or irritation, redness.
- Ingestion** : No specific data.

**Potential chronic health effects**

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- 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**

Product/ingredient name	Result	Species	Exposure
Naphthalene	Acute EC50 1600 µg/l Fresh water	Daphnia - Daphnia magna – Neonate	48 hours
	Acute LC50 2350 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 213 µg/l Fresh water	Fish - Melanotaenia fluviatilis - Larvae	96 hours

**Persistence and degradability**

**Conclusion/Summary** : Not available.

**Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Naphthalene	3.3	85.11380382	low

**Mobility in soil**

**Soil/water partition Coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects**

: No known significant effects or critical hazards.

**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. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	NA1993.	NA 1993.	NA 1993.
UN proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (Kerosene (petroleum)). Marine pollutant (Kerosene (petroleum))	PETROLEUM DISTILLATES, N.O.S. (Distillates (petroleum) hydrotreated light)	PETROLEUM DISTILLATES, N.O.S. (Distillates (petroleum) hydrotreated light)
Transport hazard class(es)	Combustible light	 3	 3
Packaging group	III	III	III
Environmental hazards	No.	No.	No.
Additional information	-	-	-

**Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 4(a) final test rules: 2-Butenedioic acid (E)-, di-C8-18-alkyl esters  
 TSCA 8(a) PAIR: Naphthalene; 2-Butenedioic acid (E)-, di-C8-18-alkyl esters  
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
 United States inventory (TSCA 8b): All components are listed or exempted.  
 Clean Water Act (CWA) 307: Naphthalene  
 Clean Water Act (CWA) 311: Naphthalene; Vinyl acetate  
 This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Vinyl acetate	0 – 0.1	Yes.	-	-	-	-

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Fire hazard

Delayed (chronic) health hazard.

**Composition/information on ingredients**

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Kerosene	< 30	Yes.	No.	No.	No.	No.
Naphthalene	0.1 - 1	No.	No.	No.	Yes.	Yes.

**SARA 313** : This product (does) contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

Product Name	CAS number	%
Naphthalene	91-20-3	< 0.1

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.

**State regulations**

**Massachusetts**

: The following components are listed: Kerosene.

**New York**

: The following components are listed: Naphthalene.

**New Jersey**

: The following components are listed: Distillates (petroleum), solvent-dewaxed heavy paraffinic; Kerosene; Naphthalene; Residual oils (petroleum), solvent-dewaxed.

**Pennsylvania**

: The following components are listed: Kerosene; Naphthalene.

**California Prop. 65**

: **WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer. .

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	< 1.0	Yes.	No.	Yes.	No.
Vinyl acetate	<0.1	Yes.	No.	No.	No.

**International regulations**

**International lists**

: **Australia inventory (AICS):** Not determined.

**China inventory (IECSC):** Not determined.

**Japan inventory:** Not determined.

**Korea inventory:** Not determined.

**Malaysia Inventory (EHS Register):** Not determined.

**New Zealand Inventory of Chemicals (NZIoC):** Not determined.

**Philippines inventory (PICCS):** Not determined.

**Taiwan inventory (CSNN):** Not determined.

**EU inventory**

: All components are listed or exempted.

**Canada**

**Canada inventory**

: All components are listed or exempted.

**WHMIS (Canada)**

: Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F)

**Section 16. Other information**

**National Fire Protection Association (U.S.A.)**

**Flammability**



**Health**

**Instability/Reactivity**

**Special**

This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**History**

**Date of revision / Supersedes** : 11/15/2013 : 05/20/2013

**Key to abbreviations**

ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labeling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogP<sub>ow</sub> = 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

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