



**Canada ColorsTM
and Chemicals Limited**

**152 Kennedy Road South
Brampton, Ontario
Canada
L6W 3G4**

General Inquiry Number: (905) 459-1232

**Material Safety Data Sheet
Attached**

1. Product and company identification

Product name : ARBREAK™ 8846 DEMULSIFIER
™ a trademark of Baker Hughes, Inc.

Supplier : Baker Petrolite Corporation
A Division of Baker Hughes Canada, Inc.
5050 47th Street S.E.
Calgary, Alberta, T2B 3S1
Canada
For Product Information: 403 537 3850 or 281 276 5400
(8:00 a.m. - 5:00 p.m. cst, Monday - Friday)

Material uses : Special: Demulsifier.

Code : ARB8846

Validation date : 10/27/2009.

Print date : 10/27/2009.

Version : 3

Responsible name : Global Regulatory Affairs - Telephone 281-276-5400 or 800-231-3606

In case of emergency : CHEMTREC: 800-424-9300 (U.S. 24 hour)
Baker Petrolite: 800-231-3606 (North America 24 hour)
CANUTEC: 613-996-6666 (Canada 24 hours)
CHEMTREC Int'l 01-703-527-3887



This product is distributed by **Canada Colors and Chemicals Limited**
General Inquiry Phone Number: (905) 459-1232
24 Hour Emergency Phone Number (416) 444-2112
CCC Product Code: 241922
CCC Product Name: ARBREAK 8846

Canada

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

WHMIS (Pictograms) :



2. Hazards identification

Physical state : Liquid. [Clear to hazy.]

Odor : Aromatic hydrocarbon.

Color : Brown. [Dark]

Emergency overview : WARNING!
COMBUSTIBLE LIQUID AND VAPOR. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT AND EYE IRRITATION. MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER. ASPIRATION HAZARD.

At elevated temperatures, vapors can form an ignitable or explosive mixture with air. Can form explosive mixtures at temperatures at or above the flash point. Static discharges can cause ignition or explosion when container is not bonded. Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Vapors can travel to a source of ignition and flashback. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment

2 . Hazards identification

before transferring material.
Routes of entry : Dermal contact. Eye contact. Inhalation.

Potential acute health effects

Inhalation : Can cause central nervous system (CNS) depression. Irritating to respiratory system.
Ingestion : Can cause central nervous system (CNS) depression. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Skin : Moderately irritating to the skin.
Eyes : Irritating to eyes.

Potential chronic health effects

Chronic effects : Contains material that may cause target organ damage, based on animal data. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Carcinogenicity : Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.
Target organs : Contains material which may cause damage to the following organs: the nervous system, upper respiratory tract, skin, eyes.

Over-exposure signs/symptoms

Inhalation : respiratory tract irritation, nausea or vomiting, coughing, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
Ingestion : nausea or vomiting
Skin : irritation, redness, dryness, cracking
Eyes : pain or irritation, watering, redness

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Oxyalkylated alkylphenolic resin	63428-92-2	60 - 100
Heavy aromatic naphtha	64742-94-5	5 - 10
Alkylaryl sulfonate	68584-27-0	1 - 5
Naphthalene	91-20-3	0.1 - 1
1,2,4-Trimethylbenzene	95-63-6	0.1 - 1

4 . First aid measures

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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. Wear suitable protective clothing and gloves. Remove contaminated clothing and shoes.

Additional information

If product is ingested and vomiting occurs naturally, have person lean forward to reduce the risk of aspiration into the lungs.

5 . Fire-fighting measures

Flammability of the product : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Extinguishing media

- Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : 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.
- Hazardous thermal decomposition products** : carbon dioxide, carbon monoxide, sulfur oxides
- 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.

6 . Accidental release measures

Personal precautions : 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 (see section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Dike spill area and do not allow product to reach sewage system or surface or ground water. Notify any reportable spill to authorities. (See section 12 for environmental risks and 13 for disposal information.) 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). Use spark-proof tools and explosion-proof equipment. 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.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. 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 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.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). 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.

8. Exposure controls/personal protection

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
Naphthalene	US ACGIH	10	52	-	15	79	-	-	-	-	
	OSHA PEL	10	50	-	-	-	-	-	-	-	
	OSHA PEL 1989	10	50	-	15	75	-	-	-	-	
1,2,4-Trimethylbenzene	US ACGIH	25	123	-	-	-	-	-	-	-	
	OSHA PEL 1989	25	125	-	-	-	-	-	-	-	

Consult local authorities for acceptable exposure limits.

Only components of this product with established exposure limits appear in the box above.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : 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. Use explosion-proof ventilation equipment.

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. Ensure that eyewash stations and safety showers are close to the workstation location. Take off contaminated clothing and wash before re-use.

Personal protection

Respiratory

: 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.

Hands

: Chemical-resistant gloves: Nitrile or Neoprene gloves. 4H gloves.

Eyes

: Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles.

Skin

: Wear long sleeves and other protective clothing to prevent repeated or prolonged skin contact.

9 . Physical and chemical properties

Physical state	: Liquid. [Clear to hazy.]
Flash point	: Closed cup: 65.6°C (150.1°F) [SFCC]
Auto-ignition temperature	: Not available.
Flammable limits	: Not available.
Color	: Brown. [Dark]
Odor	: Aromatic hydrocarbon.
pH	: 5.7 to 6.7 [Conc. (% w/w): 5%] : 5% of product in 75% isopropanol / 25% water solution
Boiling/condensation point	: Not available.
Initial Boiling Point	: Not available.
Melting/freezing point	: Not available.
Relative density	: 0.985 (15.6°C)
Density	: 8.21 (lbs/gal)
Vapor density	: >1 [Air = 1]
Odor threshold	: Not available.
Evaporation rate	: Not available.
VOC	: Not available.
Viscosity	: Not available.
Solubility (Water)	: Dispersible
Vapor pressure	: Not available.
Pour Point	: Not available.
Partition coefficient (LogKow)	: Not available.

10 . Stability and reactivity

Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization 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. Do not allow vapor to accumulate in low or confined areas. Avoid exposure - obtain special instructions before use. Do not swallow.
Materials to avoid	: 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.
Conditions of reactivity	: Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Heavy aromatic naphtha	LD50 Dermal	Rabbit	>2 mL/kg	-
	LD50 Oral	Rat	3200 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
	LC50 Inhalation	Rat	>11.4 mg/L	6 hours
	Vapor			
	LC50 Inhalation	Rat	>590 mg/m ³	4 hours
Naphthalene	Vapor			
	LD50 Dermal	Rabbit	>20 gm/kg	-

11 . Toxicological information

1,2,4-Trimethylbenzene	LD50 Dermal	Rat	>2500 mg/kg	-
	LD50 Oral	Rat	490 mg/kg	-
	LD50 Oral	Rat	5 gm/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m3	4 hours

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Naphthalene	A4	2B	-	-	Possible	-

Chronic toxicity Remarks

1) Oxyalkylated alkylphenolic resin

Not available.

2) Heavy aromatic naphtha

Not available.

3) Alkylaryl sulfonate

Not available.

4) Naphthalene

This product contains naphthalene. A National Toxicology Program (NTP) report concluded there is clear evidence to support carcinogenicity of naphthalene in male and female rats. These observations were based on 2-year inhalation studies in which the test animals were exposed to 10, 30, and 60 ppm naphthalene. In male and female rats, exposure to naphthalene caused significant increases in the incidence of nonneoplastic lesions of the nose (NTP TR-500). The relevance of the rodent findings to humans is questionable.

Naphthalene has caused hemolytic anemia, jaundice, cataracts (Shopp et al, 1984), allergic reactions (Tsyrcunov & Yakovleva, 1985), possible neurotoxicity (Riala et al, 1984), and aplastic anemia (Harden & Baetjer, 1978) in humans. Increased lung aveolar adenomas were seen in mice exposed to 30 ppm naphthalene for 6hrs/day for 6 months (ACGIH, 1992).

Naphthalene crosses the placenta leading to methemoglobinemia (decreased ability for the blood to carry oxygen), and/or hemolytic anemia, conditions considered especially dangerous to the unborn (Reprotext). Liver and kidney damage has also been seen with exposure to naphthalene (Reprotext).

Peripheral lens opacities occurred in 8 of 21 workers exposed to high levels of naphthalene fumes or vapors for 5 years, but cataracts have not been reported in other occupational studies. (Hathaway et al, 1991).

The International Agency for Research on Cancer (IARC) evaluated naphthalene and concluded that there was sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence that it causes cancer in exposed humans. Accordingly, IARC classified naphthalene as a possible human carcinogen (Group 2B).

5) 1,2,4-Trimethylbenzene

1,2,4-Trimethylbenzene, also known as pseudocumene, is a component of this product. Chronic pseudocumene exposure may provoke bronchospasm with cough and wheezing (Plunkett, 1976; ACGIH, 1991; Battig et al, 1956). Respiratory distress was noted in experimental animals following sub acute inhalation exposure (Gage, 1970). Nervousness and anxiety were noted with chronic occupational exposure (Battig et al, 1956; ACGIH, 1991).

At the time of this review, no studies were found on the potential adverse reproductive effects of pseudocumene in humans, but trimethylbenzenes (including pseudocumene) can cross the placental barrier (Clayton & Clayton, 1994; Doroty et al, 1976). In an experimental animal study, offspring born to pregnant rats exposed to pseudocumene were healthy at birth and grew normally (Cameron et al, 1938).

Blood effects such as anemia and delayed clotting time have been noticed in workers chronically exposed to a solvent containing trimethylbenzene. The blood effects, however, may have been due to a contaminant in the solvent such as benzene (a known blood toxin).

11 . Toxicological information

Additional information

This product results from a reaction involving ethylene oxide (EtO) (CAS No 75-21-8). It may, therefore contain residual EtO (less than 0.1%) which can accumulate in the container headspace and be released to the ambient environment when opened. This release of EtO would tend to increase when the product is agitated during unloading or blending operations.

The Occupational Safety and Health Administration (OSHA) has set the worker exposure level for EtO at 1 ppm (8-hour time weighted average). The STEL is 5 ppm (15 minutes). This standard regulates occupational exposure to EtO from sources including products containing residual EtO. It is the responsibility of the employer to comply with OSHA EtO Standard (29 CFR 1910.1047). The OSHA action level TWA for EtO is 0.5 ppm. The OSHA excursion level is 5 ppm as averaged over a sampling period of 15 minutes.

The International Agency for Research on Cancer (IARC) has identified EtO as a 'human carcinogen (Group 1); human evidence is limited; animal evidence is sufficient'. EtO has been listed as 'known to be a human carcinogen' by the National Toxicology Program (NTP). EtO has also been designated as a carcinogen and reproductive toxin under the State of California's Safe Drinking Water and Toxic Enforcement Act (Proposition 65). A no significant risk level of 2 mcg/day (an acceptable intake level is 20 mcg/day) was established under Proposition 65. This product results from a reaction involving propylene oxide (PO)(CAS 75-56-9). It may, therefore, contain residual amounts (<0.1%) of unreacted PO. The PO can accumulate in the container headspace, and can be released to the ambient environment when opened. This release of PO would tend to increase when the product is agitated during unloading or blending operations. The Occupational Safety and Health Administration (OSHA) has set the worker exposure level for PO at 20 ppm TWA (8-hour Time Weighted Average). The International Agency for Research on Cancer (IARC) has rated PO as a 'Possible human carcinogen (Group 2B); human evidence is not adequate; animal evidence is sufficient'. The National Toxicological Program (NTP) has rated PO as an 'Anticipated Carcinogen'. PO is also identified as a chemical known to the State of California to cause cancer under the Safe Drinking Water and Toxic Enforcement Act (Proposition 65). A no significant risk level of 3 mcg/day (oral) and 60 mcg/day (inhalation) was established under Proposition 65.

12 . Ecological information

Aquatic ecotoxicity

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information

14 . Transport information

DOT Classification	NA1993	Combustible liquid, n.o.s. (Contains: Heavy aromatic naphtha)	Combustible liquid.	III		Remarks This material is not regulated by DOT if transported in a packaging <=/= 119 gallons. This material is not regulated by TDG or IMO.
TDG Classification	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-

PG* : Packing group

DOT Reportable Quantity Naphthalene, 1259 gal of this product.**Marine pollutant** Not applicable.**North-America NAERG** : 128**15 . Regulatory information**

WHMIS (Canada) : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

Canada (CEPA DSL): : All components are listed or exempted.**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.****Canadian NPRI** : The following components are listed: Heavy aromatic solvent naphtha**United States inventory (TSCA 8b)** : All components are listed or exempted.**U.S. Federal regulations** : **United States inventory (TSCA 8b):** All components are listed or exempted.
TSCA 12(b) one-time export: naphthalene**SARA 313**

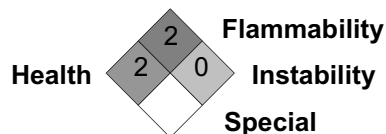
	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
Supplier notification	: Naphthalene	91-20-3	0.1 - 1

16 . Other information

Label requirements : COMBUSTIBLE LIQUID AND VAPOR. INHALATION CAUSES HEADACHES, DIZZINESS, DROWSINESS AND NAUSEA AND MAY LEAD TO UNCONSCIOUSNESS. CAUSES RESPIRATORY TRACT AND EYE IRRITATION. MAY CAUSE SKIN IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. HARMFUL OR FATAL IF SWALLOWED. CAN ENTER LUNGS AND CAUSE DAMAGE. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER.

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

16 . Other information



Date of printing : 10/27/2009.

▣ Indicates information that has changed from previously issued version.

Notice to reader

NOTE: The information on this MSDS is based on data which is considered to be accurate. Baker Hughes, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

This MSDS was prepared and is to be used for this product. If the product is used as a component in another product, this MSDS information may not be applicable.