



SAFETY DATA SHEET

Section 1. Identification

CHS Inc.	Transportation Emergency (CHEMTREC)	:	1-800-424-9300
P.O. Box 64089	Technical Information	:	1-651-355-8443
Mail station 525	SDS Information	:	1-651-355-8445
St. Paul, MN 55164-0089			

Product name	: WINTER MASTER B-2, or B-5	SDS no.	: 0205-HLFC
Common name	: Premium Winter Diesel Fuel (High Sulfur/ Low Sulfur/ Ultra Low Sulfur)	Revision date	: 06/09/2015
Chemical name	: Petroleum Distillate	Chemical formula	: Mixture
Chemical family	: A mixture of Paraffinic, Olefinic, Naphthenic, and Aromatic Hydrocarbon.		

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

Not available.

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
- AQUATIC HAZARD (ACUTE) - Category 2
- AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements :

- Flammable liquid and vapor.
- Suspected of causing cancer.
- Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

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. Avoid release to the environment.

Response : Collect spillage. IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

Hazards not otherwise classified (HNOC) : None known.

Hazardous Material Information System (U.S.A.)	Health :	1	* Flammability :	2	Physical hazards :	0
National Fire Protection Association (U.S.A.)	Health :	1	Flammability :	2	Instability :	0

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
 Chemical name : Petroleum Distillate
 Other means of identification : Premium Winter Diesel Fuel (High Sulfur/ Low Sulfur/ Ultra Low Sulfur)

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light	60 - 100	64742-47-8
Kerosine (petroleum), hydrodesulfurized	60 - 100	64742-81-0
Kerosene	60 - 100	8008-20-6
Fuels, diesel	10 - 30	68476-34-6
Naphthalene	1 - 5	91-20-3
Xylene	1 - 5	1330-20-7
1,2,4-Trimethylbenzene	0.1 - 1	95-63-6
Biphenyl	0.1 - 1	92-52-4

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 contact : If material comes in contact with the eyes, immediately wash the eyes with large amounts of water for 15 minutes, occasionally lifting the lower and upper lids. Get medical attention.

Inhalation : If person breathes in large amounts of material, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention as soon as possible.

Skin contact : If the material comes in contact with the skin, wash the contaminated skin with soap and water promptly. If the material penetrates through clothing, remove the clothing and wash the skin with soap and water promptly. If irritation persists after washing, get medical attention immediately.

Ingestion : If material has been swallowed, do not induce vomiting. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following: respiratory tract irritation, coughing.

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

Ingestion : No known significant effects or 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 : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. 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 : Dry Chemical, Foam, Carbon Dioxide (CO₂), Water (fog pattern).

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

Specific hazards arising from the chemical : Vapors are heavier than air and may travel along the ground to a source of ignition (pilot light, heater, electric motor) some distance away. Containers, drums (even empty) can explode when heat (welding, cutting, etc.) is applied.

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

- Special protective actions for fire-fighters** : Water may be ineffective on flames, but should be used to keep fire-exposed containers cool. Water or foam sprayed into container of hot burning product could cause frothing and endanger fire fighters. Large fires, such as tank fires, should be fought with caution. If possible, pump the contents from the tank and keep adjoining structures cool with water. Avoid spreading burning liquid with water used for cooling purposes. Do not flush down public sewers. Avoid inhalation of vapors. Firefighters should wear self-contained breathing apparatus.
- 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** : Keep unnecessary and unprotected personnel from entering. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Methods and materials for containment and cleaning up

- Spill** : Contain with dikes or absorbent to prevent migration to sewers/streams. Take up small spill with dry chemical absorbent; large spills may require pump or vacuum prior to absorbent. May require excavation of severely contaminated soil.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.
- 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.
- 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

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light	OSHA PEL (United States). TWA: 213 ppm TWA: 1200 mg/m ³ ACGIH TLV (United States, 6/2013). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Kerosine (petroleum), hydrodesulfurized	ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Kerosene	NIOSH REL (United States, 10/2013). TWA: 100 mg/m ³ 10 hours. ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 200 mg/m ³ , (as total hydrocarbon vapor) 8 hours.
Fuels, diesel	ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 100 mg/m ³ , (measured as total hydrocarbons) 8 hours. Form: Inhalable fraction and vapor
Naphthalene	ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 52 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. NIOSH REL (United States, 10/2013). STEL: 75 mg/m ³ 15 minutes. STEL: 15 ppm 15 minutes. TWA: 50 mg/m ³ 10 hours. TWA: 10 ppm 10 hours.
Xylene	OSHA PEL (United States, 2/2013). TWA: 50 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. ACGIH TLV (United States, 4/2014). STEL: 651 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m ³ 8 hours.

1,2,4-Trimethylbenzene	<p>TWA: 100 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. ACGIH TLV (United States, 4/2014). TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours. NIOSH REL (United States, 10/2013). TWA: 125 mg/m³ 10 hours. TWA: 25 ppm 10 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 25 ppm 8 hours. TWA: 125 mg/m³ 8 hours. ACGIH TLV (United States, 3/2012). TWA: 1.3 mg/m³ 8 hours. TWA: 0.2 ppm 8 hours. NIOSH REL (United States, 6/2009). TWA: 1 mg/m³ 10 hours. TWA: 0.2 ppm 10 hours. OSHA PEL (United States, 6/2010). TWA: 1 mg/m³ 8 hours. TWA: 0.2 ppm 8 hours.</p>
Biphenyl	

Appropriate engineering controls : Use only with adequate ventilation.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

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. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Recommended: Splash goggles and a face shield, where splash hazard exists.
- Skin protection**
- Hand protection** : 4 - 8 hours (breakthrough time): Nitrile gloves.
- Body protection** : Recommended: Long sleeved coveralls.
- Other skin protection** : Recommended: Impervious boots.
- Respiratory protection** : If ventilation is inadequate, use a NIOSH-certified respirator with an organic vapor cartridge and P95 particulate filter.

Section 9. Physical and chemical properties

Appearance		Relative density	: 0.82 to 0.9
Physical state	: Liquid. [May contain dye]	Evaporation rate	: >1 (Butyl acetate = 1)
Color	: A clear to light yellow liquid. May contain red dye.	Solubility	: Insoluble in the following materials: cold water and hot water.
Odor	: Hydrocarbon.	Solubility in water	: Insoluble
Odor threshold	: Not available.	Partition coefficient: n-octanol/water	: Not available.
pH	: Not available.	Auto-ignition temperature	: 210°C (410°F)
Melting point	: Not available.	Decomposition temperature	: Not available.
Boiling point	: 171.11 to 298.88°C (340 to 570°F)	SADT	: Not available.
Flash point	: Closed cup: 38 to 66°C (100.4 to 150.8°F) [Pensky-Martens.]	Viscosity	: Not available.
Flammability	: Not available.	Vapor pressure	: <6.7 kPa (<50 mm Hg) (68°F)
Lower and upper explosive (flammable) limits	: Lower: 0.7% Upper: 5%	Vapor density	: >1 [Air = 1]

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. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	:	Reactive or incompatible with the following materials: Strong oxidizing agents.
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
Kerosine (petroleum), hydrodesulfurized	LD50 Oral	Rat	>5000 mg/kg	-
Kerosene	LD50 Oral	Rat	15 g/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Biphenyl	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2140 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kerosine (petroleum), hydrodesulfurized	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Kerosene	Skin - Severe irritant	Rabbit	-	500 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100%	-
	Skin - Moderate irritant	Rabbit	-	0.5 mL	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 0.05 mL	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 µL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100%	-
Biphenyl	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 500 µL	-

Sensitization

Skin : There is no data available.

Respiratory : There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

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

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,2,4-Trimethylbenzene Biphenyl	Category 3 Category 3	Not applicable. Not applicable.	Respiratory tract irritation Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light Kerosine (petroleum), hydrodesulfurized Kerosene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light Naphthalene	Acute LC50 2200 µg/L Fresh water	Fish - Lepomis macrochirus	4 days
	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
Xylene	Chronic NOEC 0.67 ppm Fresh water	Fish - Oncorhynchus kisutch	40 days
	Acute IC50 10 mg/L	Algae	72 hours
	Acute LC50 8500 µg/L Marine water	Crustaceans - Palaemonetes pugio	48 hours
1,2,4-Trimethylbenzene	Acute LC50 13400 µg/L Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 4910 µg/L Marine water	Crustaceans - Elasmopus pecteniscrus - Adult	48 hours
Biphenyl	Acute LC50 22.4 mg/L Fresh water	Fish - Tilapia zillii	96 hours
	Acute LC50 0.36 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.5 mg/L Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.17 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.229 mg/L Fresh water	Fish - Oncorhynchus mykiss	87 days

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Fuels, diesel	>3.3	-	low
Naphthalene	3.4	36.5 to 168	low
Xylene	3.12	8.1 to 25.9	low
1,2,4-Trimethylbenzene	3.63	243	low
Biphenyl	4.008	1900	high

Mobility in soil

Soil/water partition coefficient (K_{oc}) : There is no data available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Section 14. Transport information

DOT IDENTIFICATION NUMBER UN1993	DOT proper shipping name DIESEL FUEL (Kerosine (petroleum), hydrodesulfurized, Naphthalene). Marine pollutant (Kerosene) RQ (Naphthalene, Xylene)
DOT Hazard Class(es) 3	PG III DOT EMER. RESPONSE GUIDE NO. 128

Section 15. Regulatory information

U.S. Federal regulations : TSCA 8(a) PAIR: Naphthalene; Biphenyl
 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; Ethylbenzene
 Clean Water Act (CWA) 311: Naphthalene; Ethylbenzene; Xylene; Vinyl acetate

Clean Air Act Section 602 Class I Substances : Not listed DEA List I Chemicals (Precursor Chemicals) : Not listed
 Clean Air Act Section 602 Class II Substances : Not listed DEA List II Chemicals (Essential Chemicals) : Not listed
 Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Listed

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.	1000	129	5000	644.8

SARA 304 RQ : 1388888888.9 lbs / 630555555.6 kg [193692040.7 gal / 733204134.4 L]

SARA 311/312

Hazard classifications : 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
Distillates (petroleum), hydrotreated light	60 - 100	Yes.	No.	No.	No.	No.
Kerosine (petroleum), hydrodesulfurized	60 - 100	Yes.	No.	No.	No.	No.
Kerosene	60 - 100	Yes.	No.	No.	No.	No.
Fuels, diesel	10 - 30	Yes.	No.	No.	No.	Yes.
Naphthalene	1 - 5	Yes.	No.	No.	Yes.	Yes.
Xylene	1 - 5	Yes.	No.	No.	Yes.	No.
1,2,4-Trimethylbenzene	0.1 - 1	Yes.	No.	No.	Yes.	No.
Biphenyl	0.1 - 1	No.	No.	No.	Yes.	No.

SARA 313 : This product (does/not) 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 - 2
Xylene	1330-20-7	0 - 2
1,2,4-Trimethylbenzene	95-63-6	0 - 1
Ethylbenzene	100-41-4	<0.01
Biphenyl	92-52-4	0 - 1
Vinyl acetate	108-05-4	<0.0004

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; Naphthalene; 1,2,4-Trimethylbenzene; Xylene
New York : The following components are listed: Naphthalene; Xylene
New Jersey : The following components are listed: Kerosene; Naphthalene; 1,2,4-Trimethylbenzene; Xylene
Pennsylvania : The following components are listed: Kerosene; Naphthalene; 1,2,4-Trimethylbenzene; Xylene
California Prop. 65 : No products were found.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	Yes.	No.	Yes.	No.
Ethylbenzene	Yes.	No.	41 µg/day (ingestion) 54 µg/day (inhalation)	No.
Vinyl acetate	Yes.	No.	No.	No.

Section 16. Other information**Revision date** : 06/09/2015**Supersedes** : 09/22/2014**Revised Section(s)** : 1, 2, 16.**Prepared by** : KMK Regulatory Services Inc.Notice to reader

THE INFORMATION CONTAINED IN THIS SDS RELATES ONLY TO THE SPECIFIC MATERIAL IDENTIFIED. IT DOES NOT COVER USE OF THAT MATERIAL IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PARTICULAR PROCESS. IN COMPLIANCE WITH 29 C.F.R. 1910.1200(g), CHS HAS PREPARED THIS SDS IN SEGMENTS, WITH THE INTENT THAT THOSE SEGMENTS BE READ TOGETHER AS A WHOLE WITHOUT TEXTUAL OMISSIONS OR ALTERATIONS. CHS BELIEVES THE INFORMATION CONTAINED HEREIN TO BE ACCURATE, BUT MAKES NO REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION OR ABOUT THE FITNESS OF CONTENTS HEREIN FOR EITHER GENERAL OR PARTICULAR PURPOSES. PERSONS REVIEWING THIS SDS SHOULD MAKE THEIR OWN DETERMINATION AS TO THE MATERIAL'S SUITABILITY AND COMPLETENESS FOR USE IN THEIR PARTICULAR APPLICATIONS.



OUR ENERGY COMES THROUGH®

A BRAND OF The logo for CHS, consisting of the letters "CHS" in a bold, serif font. The letters are white and are set against a dark, curved background that resembles a stylized "C" or a swoosh.