SAFETY DATA SHEET

Section 1. Identification

Manufacturer
CHS Inc.
P.O. Box 64089
Mail station 573
St. Paul, MN 55164-0089

Transportation Emergency (CHEMTREC) : **1-800-424-9300**
CCN23163

Technical Information : **1-651-355-8443**

SDS Information : **1-651-355-8445**

Product name	:	**WINTER MASTER DIESEL FUEL**	**SDS no.**	:	**0204-WMDF**
Common name	:	**Premium Winter Diesel Fuel (Low sulfur/Ultra low sulfur)**	**Revision date**	:	09/23/2021
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
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
ASPIRATION HAZARD - Category 1
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
H226 - Flammable liquid and vapor.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H351 - Suspected of causing cancer.
H411 - 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. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Keep container tightly closed. Avoid release to the environment. Wash thoroughly after handling.

Response : Collect spillage. IF exposed or concerned: Get medical advice or attention. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

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 : None known.

Hazardous Material Information System (U.S.A.)	**Health :**	3 *	**Flammability :**	2	**Physical hazards :**	0	
National Fire Protection Association (U.S.A.)	**Health :**	3	**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 (Low Sulfur/ Ultra Low Sulfur)

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light	≥50 - ≤75	64742-47-8
Kerosine (Petroleum), Hydrodesulfurized	≥50 - ≤75	64742-81-0
Kerosine (Petroleum)	≥50 - ≤75	8008-20-6
Fuels, diesel, No 2	≥25 - ≤50	68476-34-6
Naphthalene	≥1 - ≤3	91-20-3
Ethylbenzene	≥0.3 - <1	100-41-4

The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

There are no 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 : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways.

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 (CO_2), Water (fog pattern).

Unsuitable extinguishing media : Do not use water jet.

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

United States

Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Kerosine (Petroleum), Hydrodesulfurized	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Kerosine (Petroleum)	**NIOSH REL (United States, 10/2016).** TWA: 100 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours.
Fuels, diesel, No 2	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 100 mg/m³, (measured as total hydrocarbons) 8 hours. Form: Inhalable fraction and vapor
Naphthalene	**ACGIH TLV (United States, 3/2020). Absorbed through skin.** TWA: 10 ppm 8 hours. TWA: 52 mg/m³ 8 hours. **NIOSH REL (United States, 10/2016).** TWA: 10 ppm 10 hours. TWA: 50 mg/m³ 10 hours. STEL: 15 ppm 15 minutes. STEL: 75 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.
Ethylbenzene	**ACGIH TLV (United States, 3/2020).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours.

	TWA: 435 mg/m³ 8 hours.

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

Physical state : Liquid. [May contain dye]

Color : A clear to light yellow liquid. May contain red dye.

Odor : Hydrocarbon.

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : 171.11 to 298.88°C (340 to 570°F)

Flash point : Closed cup: 38 to 66°C (100.4 to 150.8°F) [Pensky-Martens]

Flammability : Not available.

Lower and upper explosive (flammable) limits : Lower: 0.7%
Upper: 5%

Relative density : 0.82 to 0.9

Evaporation rate : >1 (Butyl acetate = 1)

Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Insoluble

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

Auto-ignition temperature : >256.66°C (>494°F)

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Vapor pressure : <6.7 kPa (<50 mm Hg) (68°F)

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	-
Kerosine (Petroleum)	LD50 Oral	Rat	15 g/kg	-
Naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Kerosine (Petroleum), Hydrodesulfurized	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Kerosine (Petroleum)	Skin - Moderate irritant	Rabbit	-	0.5 mL	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 %	-
	Skin - Severe irritant	Rabbit	-	500 mg	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

Skin : Not hazardous (per manufacturer).

Respiratory : Not hazardous (per manufacturer).

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Kerosine (Petroleum)	-	3	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1
Kerosine (Petroleum), Hydrodesulfurized	ASPIRATION HAZARD - Category 1
Kerosine (Petroleum)	ASPIRATION HAZARD - Category 1
Ethylbenzene	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	Acute LC50 2200 µg/L Fresh water	Fish - Lepomis macrochirus	4 days
Naphthalene	Acute EC50 1.6 mg/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
	Chronic NOEC 0.5 mg/L Marine water	Crustaceans - Uca pugnax - Adult	3 weeks
	Chronic NOEC 1.5 mg/L Fresh water	Fish - Oreochromis mossambicus	60 days
Ethylbenzene	Acute LC50 13.3 mg/L Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute LC50 13.9 mg/L Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Fuels, diesel, No 2	>3.3	-	low
Naphthalene	3.4	36.5 to 168	low
Ethylbenzene	3.6	-	low

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 NA1993

DOT proper shipping name DIESEL FUEL RQ (Naphthalene)

DOT Hazard Class(es) 3

PG III

DOT-TDG EMER. RESPONSE GUIDE NO. 128

Section 15. Regulatory information

U.S. Federal regulations :

TSCA 5(a)2 proposed significant new use rules: 4-Nonylphenol, Branched

TSCA 8(a) PAIR: Naphthalene; 4-Nonylphenol, Branched

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are active or exempted.

Clean Water Act (CWA) 307: Naphthalene; Ethylbenzene; Toluene; Benzene

Clean Water Act (CWA) 311: Naphthalene; Ethylbenzene; Xylene; Toluene; Benzene; Formaldehyde; Ethylenediamine

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : 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 (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
Formaldehyde	≤0.001	Yes.	500	73.9	100	14.8
Ethylenediamine	≤0.001	Yes.	10000	1337.1	5000	668.5

SARA 304 RQ : 74074074.1 lbs / 33629629.6 kg [10330242.2 gal / 39104220.5 L]

SARA 311/312

Hazard classifications : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	Classification
Distillates (petroleum), hydrotreated light	FLAMMABLE LIQUIDS - Category 3 ASPIRATION HAZARD - Category 1
Kerosine (Petroleum), Hydrodesulfurized	FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A ASPIRATION HAZARD - Category 1
Kerosine (Petroleum)	FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A ASPIRATION HAZARD - Category 1
Fuels, diesel, No 2	FLAMMABLE LIQUIDS - Category 3 CARCINOGENICITY - Category 2
Naphthalene	FLAMMABLE SOLIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 2
Ethylbenzene	FLAMMABLE LIQUIDS - Category 2

	ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1

SARA 313

Product name	CAS number	%
Naphthalene Ethylbenzene	91-20-3 100-41-4	<2.133 <0.77648

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: Kerosine (Petroleum); Naphthalene

New York : The following components are listed: Naphthalene

New Jersey : The following components are listed: Kerosine (Petroleum); Naphthalene; Ethylbenzene

Pennsylvania : The following components are listed: Kerosine (Petroleum); Naphthalene

California Prop. 65

WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Naphthalene, Ethylbenzene, Cumene and Formaldehyde, which are known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Naphthalene	Yes.	-
Ethylbenzene	Yes.	-
Toluene	-	Yes.
Benzene	Yes.	Yes.
Cumene	-	-
Formaldehyde	Yes.	-

Section 16. Other information

Revision date : 09/23/2021 **Supersedes** : 06/09/2015

Revised Section(s) : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16. **Prepared by** : KMK Regulatory Services Inc.

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