

Fuel Right Winter 4K+

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 10/18/2019

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Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Fuel Right Winter 4K+
Product code : Not available

1.2. Recommended use and restrictions on use

Recommended use : Fuel additive

1.3. Supplier

Manufacturer

Fuel Right
41 Germay Drive
Wilmington, Delaware 19804 - USA
T 302-425-4400

1.4. Emergency telephone number

Emergency number : CHEMTREC (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flam. Liq. 4
Skin Irrit. 2
Eye Dam. 1
Carc. 2
Repr. 2
Asp. Tox. 1

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Combustible liquid
Causes skin irritation
Causes serious eye damage
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May be fatal if swallowed and enters airways

Precautionary statements (GHS US) :

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wash hands, forearms and face thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If exposed or concerned: Get medical advice/attention.
If swallowed: Immediately call a poison center or doctor
Do NOT induce vomiting.
If on skin: Wash with plenty of water
Take off contaminated clothing and wash it before reuse.
If skin irritation occurs: Get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a poison center or doctor
Store in a well-ventilated place. Keep cool.
Store locked up.

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Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Solvent naphtha, petroleum, heavy aromatic	(CAS-No.) 64742-94-5	30 - 60
Propanol, 1(or2)-(2-methoxymethylethoxy)-	(CAS-No.) 34590-94-8	10 - 30
Petroleum distillates, hydrotreated light	(CAS-No.) 64742-47-8	10 - 30
Cyclic Amino Compound	Trade Secret	5 - 10
Naphthalene	(CAS-No.) 91-20-3	< 7
Kerosine(petroleum),hydrosulfurized	(CAS-No.) 64742-81-0	< 3
Aliphatic Diamine	Trade Secret	< 3
Hexanoic acid, 2-ethyl-, ethenyl ester	(CAS-No.) 94-04-2	< 1

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
- Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Symptoms/effects after ingestion : May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
- Chronic symptoms : Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water fog. Dry chemical. Alcohol-resistant foam. Carbon dioxide (CO₂).
- Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

- Fire hazard : Combustible liquid. Products of combustion may include, and are not limited to: oxides of carbon. Oxides of nitrogen.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray to keep fire-exposed containers cool.

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- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation. Spilled material may present a slipping hazard.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition. No smoking. Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store away from direct sunlight or other heat sources. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Cyclic Amino Compound ((Trade Secret))		
Not applicable		
Propanol,1(or2)-(2-methoxymethylethoxy)- (34590-94-8)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	600 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
OSHA	Limit value category (OSHA)	prevent or reduce skin absorption
IDLH	US IDLH (ppm)	600 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	600 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	900 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
NIOSH	US-NIOSH chemical category	Potential for dermal absorption

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Aliphatic Diamine (Trade Secret)		
Not applicable		
Kerosine(petroleum),hydrodesulfurized (64742-81-0)		
ACGIH	ACGIH TWA (mg/m ³)	200 mg/m ³ (application restricted to conditions in which there are negligible aerosol exposures-total hydrocarbon vapor (Kerosene/Jet fuels)
Benzene, 1,2,4-trimethyl- (95-63-6)		
NIOSH	NIOSH REL (TWA) (mg/m ³)	125 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	25 ppm
Hexanoic acid, 2-ethyl-, ethenyl ester (94-04-2)		
Not applicable		
Petroleum distillates, hydrotreated light (64742-47-8)		
Not applicable		
Naphthalene (91-20-3)		
ACGIH	ACGIH TWA (ppm)	10 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	50 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
IDLH	US IDLH (ppm)	250 ppm
NIOSH	NIOSH REL (TWA) (mg/m ³)	50 mg/m ³
NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (STEL) (mg/m ³)	75 mg/m ³
NIOSH	NIOSH REL (STEL) (ppm)	15 ppm
Solvent naphtha, petroleum, heavy aromatic (64742-94-5)		
Not applicable		

8.2. Appropriate engineering controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
- Environmental exposure controls : Avoid release to the environment. Maintain levels below community environmental protection thresholds.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration

Eye protection:

Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. 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.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : No data available.

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Color	: Hazy pale yellow to light amber
Odor	: Hydrocarbon / Fish oil / Ammonia
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 71 °C (159.8 °F)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Flammable
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.90 @23 °C (73.4 °F)
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Open flame. Sources of ignition. Incompatible materials.

10.5. Incompatible materials

Oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Oxides of nitrogen. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Propanol,1(or2)-(2-methoxymethylethoxy)- (34590-94-8)	
LD50 oral rat	5.35 g/kg
LD50 dermal rabbit	9500 mg/kg
ATE US (oral)	5350 mg/kg body weight
ATE US (dermal)	9500 mg/kg body weight
Kerosine(petroleum),hydrosulfurized (64742-81-0)	
LD50 oral rat	> 5000 mg/kg

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Kerosine(petroleum),hydrodesulfurized (64742-81-0)	
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5200 mg/m ³ (Exposure time: 4 h)

Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 oral rat	3280 mg/kg
LD50 dermal rabbit	> 3160 mg/kg
LC50 inhalation rat	18 g/m ³ (Exposure time: 4 h)
ATE US (oral)	3280 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	18 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Hexanoic acid, 2-ethyl-, ethenyl ester (94-04-2)	
LD50 oral rat	4290 mg/kg
ATE US (oral)	4290 mg/kg body weight

Petroleum distillates, hydrotreated light (64742-47-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 5.2 mg/l/4h

Naphthalene (91-20-3)	
LD50 oral rat	1110 mg/kg
LD50 dermal rabbit	1120 mg/kg
LC50 inhalation rat	> 340 mg/m ³ (Exposure time: 1 h)
ATE US (oral)	1110 mg/kg body weight
ATE US (dermal)	1120 mg/kg body weight

Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2 ml/kg
LC50 inhalation rat	> 590 mg/m ³ (Exposure time: 4 h)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

Naphthalene (91-20-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified

Benzene, 1,2,4-trimethyl- (95-63-6)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : May be fatal if swallowed and enters airways.
Viscosity, kinematic : No data available
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

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Symptoms/effects after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. May result in aspiration into the lungs, causing chemical pneumonia. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic symptoms	: Suspected of causing cancer. Suspected of damaging fertility or the unborn child.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Propanol,1(or2)-(2-methoxymethylethoxy)- (34590-94-8)	
LC50 fish 1	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Kerosine(petroleum),hydrodesulfurized (64742-81-0)	
LC50 fish 1	45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	4720 mg/l (Exposure time: 48 h - Species: Den-dronereides heteropoda)
LC50 fish 2	1740 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Benzene, 1,2,4-trimethyl- (95-63-6)	
LC50 fish 1	7.19 - 8.28 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	6.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Petroleum distillates, hydrotreated light (64742-47-8)	
LC50 fish 1	45 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	2.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Naphthalene (91-20-3)	
LC50 fish 1	5.74 - 6.44 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	1.6 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	1.96 mg/l (Exposure time: 48 h - Species: Daphnia magna [Flow through])
Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
LC50 fish 1	19 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	0.95 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	2.34 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)

12.2. Persistence and degradability

Fuel Right Winter 4K+	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Fuel Right Winter 4K+	
Bioaccumulative potential	Not established.
Propanol,1(or2)-(2-methoxymethylethoxy)- (34590-94-8)	
Partition coefficient n-octanol/water	-0.064 (at 20 °C)
Kerosine(petroleum),hydrodesulfurized (64742-81-0)	
BCF fish 1	61 - 159
Benzene, 1,2,4-trimethyl- (95-63-6)	
Partition coefficient n-octanol/water	3.63
Petroleum distillates, hydrotreated light (64742-47-8)	
BCF fish 1	61 - 159

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Naphthalene (91-20-3)	
BCF fish 1	30 - 430
Partition coefficient n-octanol/water	3.6
Solvent naphtha, petroleum, heavy aromatic (64742-94-5)	
BCF fish 1	61 - 159
Partition coefficient n-octanol/water	2.9 - 6.1

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapors are flammable.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

UN-No.(DOT) : NA1993

Proper Shipping Name (DOT) : Combustible liquid, n.o.s.

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III

SECTION 15: Regulatory information


15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

No additional information available

15.3. US State regulations

 **WARNING:** This product can expose you to Naphthalene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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Other information : None.

Prepared by : Nexreg Compliance Inc.

www.Nexreg.com



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