



SAFETY DATA SHEET

1. Identification

Product identifier	K&W® FiberLock™ Head Gasket & Block Repair - 946 mL
Other means of identification	
Product Code	No. 75224 (Item# 1006368)
Recommended use	Seals leaks in engine block
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufactured or sold by:	
Company name	CRC Canada Co.
Address	83 Galaxy Blvd Unit 35 - 37 Toronto, ON M9W 5X6 Canada
Telephone	
General Information	416-847-7750
24-Hour Emergency (CHEMTREC)	800-424-9300 (Canada)
Website	www.crc-canada.ca
E-mail	Support.CA@crcindustries.com

2. Hazard identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Carcinogenicity	Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements



Signal word	Warning
Hazard statement	Causes skin irritation. Causes serious eye irritation. Suspected of causing cancer. Toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.
Response	IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
water		7732-18-5	80 - 100
sodium silicate		1344-09-8	3 - 7
cellulose		9004-34-6	0.5 - 1.5
distillates (petroleum), solvent-dewaxed heavy paraffinic		64742-65-0	0.5 - 1.5
Refractories, fibers, aluminosilicate		142844-00-6	0.5 - 1.5
aluminum		7429-90-5	0.1 - 1
bentonite		1302-78-9	0.1 - 1
sodium nitrate		7631-99-4	0.1 - 1
copper		7440-50-8	0 - 0.1

The exact percentage (concentration) of composition has been withheld as a trade secret.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Prevent product from entering drains.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	1 mg/m ³	Respirable fraction.
cellulose (CAS 9004-34-6)	TWA	10 mg/m ³	
copper (CAS 7440-50-8)	TWA	1 mg/m ³	Dust and mist.
		0.2 mg/m ³	Fume.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	TWA	5 mg/m ³	Inhalable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	5 mg/m ³	Pyrophoric powder.
		10 mg/m ³	Dust.
cellulose (CAS 9004-34-6)	TWA	10 mg/m ³	
copper (CAS 7440-50-8)	TWA	1 mg/m ³	Dust and mist.
		0.2 mg/m ³	Fume.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	TWA	0.2 fibers/cm ³	Fiber.
		5 mg/m ³	Total particulate.
		5 mg/m ³	Fiber, total

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	1 mg/m ³	Respirable.
cellulose (CAS 9004-34-6)	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Total dust.
copper (CAS 7440-50-8)	TWA	1 mg/m ³	Dust and mist.
		0.2 mg/m ³	Fume.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	TWA	1 mg/m3	Mist.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	TWA	0.2 fibers/cm3	Fiber.
		5 mg/m3	Inhalable fibers.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.
cellulose (CAS 9004-34-6)	TWA	10 mg/m3	
copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	TWA	5 mg/m3	Inhalable fraction.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	TWA	5 mg/m3	Inhalable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	1 mg/m3	Respirable fraction.
cellulose (CAS 9004-34-6)	TWA	10 mg/m3	
copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and fume.
		0.2 mg/m3	Fume.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	TWA	0.5 fibers/cc	Respirable fibers.
		5 mg/m3	Inhalable fraction.

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	TWA	5 mg/m3	Welding fume.
		10 mg/m3	
cellulose (CAS 9004-34-6)	TWA	10 mg/m3	Total dust.
copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	TWA	1 fibers/cm3n	Fiber.
		10 mg/m3	fibers, total dust

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
aluminum (CAS 7429-90-5)	15 minute	20 mg/m3	Dust.
		10 mg/m3	Pyrophoric powder.
	8 hour	5 mg/m3	Pyrophoric powder.

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value	Form
		10 mg/m3	Dust.
cellulose (CAS 9004-34-6)	15 minute	20 mg/m3	Fiber.
	8 hour	10 mg/m3	Fiber.
copper (CAS 7440-50-8)	15 minute	3 mg/m3	Dust and mist.
		0.6 mg/m3	Fume.
	8 hour	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	15 minute	10 mg/m3	
	8 hour	5 mg/m3	
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	15 minute	10 mg/m3	Inhalable fraction.
	8 hour	0.2 fibers/cc	Respirable fibers.
		5 mg/m3	Inhalable fraction.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear protective gloves such as: Neoprene. Nitrile.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with an organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Beige.
Odor	Bland.
Odor threshold	Not available.
pH	11.2
Melting point/freezing point	32 °F (0 °C) estimated
Initial boiling point and boiling range	212 °F (100 °C) estimated
Flash point	None (Tag Closed Cup)
Evaporation rate	Slow.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
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Flammability limit - upper (%)	Not available.
Vapor pressure	19.1 hPa estimated
Vapor density	Not available.
Relative density	1.07
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	400 °F (204.4 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Percent volatile	84.9 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong bases. Strong oxidizing agents. Reducing agents. Sodium azide. Acetylene. Magnesium. Hydrofluoric acid.
Hazardous decomposition products	Aldehydes. Alcohols. Ethers. Hydrocarbons. Ketones. Organic acids. Nitrogen oxides (NOx). Sodium nitrite. Sodium oxides. Hydrogen.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Health injuries are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity Not known.

Components	Species	Test Results
aluminum (CAS 7429-90-5)		
<u>Acute</u>		
Oral		
LD50	Rat	> 15900 mg/kg
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
sodium nitrate (CAS 7631-99-4)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
Inhalation		
LC50	Rat	> 0.527 mg/l, 4 hours
Oral		
LD50	Rat	> 2000 mg/kg 4.3 g/kg

sodium silicate (CAS 1344-09-8)

Acute

Oral

Solid

LD50

Rat

1500 - 3200 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

aluminum (CAS 7429-90-5)	Irritant
cellulose (CAS 9004-34-6)	Irritant
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	Irritant

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Suspected of causing cancer.

ACGIH Carcinogens

aluminum (CAS 7429-90-5)	A4 Not classifiable as a human carcinogen.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	A4 Not classifiable as a human carcinogen.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	A2 Suspected human carcinogen.

Canada - Alberta OELs: Carcinogen category

Refractories, fibers, aluminosilicate (CAS 142844-00-6) Suspected human carcinogen.

Canada - Manitoba OELs: carcinogenicity

aluminum (CAS 7429-90-5)	Not classifiable as a human carcinogen.
distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	Not classifiable as a human carcinogen.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	Suspected human carcinogen.

Canada - Quebec OELs: Carcinogen category

Refractories, fibers, aluminosilicate (CAS 142844-00-6) Detected carcinogenic effect in animals.

IARC Monographs. Overall Evaluation of Carcinogenicity

distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	3 Not classifiable as to carcinogenicity to humans.
Refractories, fibers, aluminosilicate (CAS 142844-00-6)	2B Possibly carcinogenic to humans.
sodium nitrate (CAS 7631-99-4)	2A Probably carcinogenic to humans.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
aluminum (CAS 7429-90-5)		
Aquatic		
Fish	LC50	Grass carp, white amur (Ctenopharyngodon idella) 0.21 - 0.31 mg/l, 96 hours
bentonite (CAS 1302-78-9)		
Aquatic		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 19000 mg/l, 96 hours
copper (CAS 7440-50-8)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 0.266 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 0.052 mg/l, 96 hours
sodium nitrate (CAS 7631-99-4)		
Aquatic		
Fish	LC50	Bluegill (Lepomis macrochirus) 10000 mg/l, 96 hours
sodium silicate (CAS 1344-09-8)		
Aquatic		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 22.94 - 49.01 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis) 2320 mg/l, 96 hours
<i>Acute</i>		
Fish	LC50	Western mosquitofish (Gambusia affinis) 2320 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

aluminum (CAS 7429-90-5)

copper (CAS 7440-50-8)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date	09-06-2019
Version #	01
Further information	CRC # 479/1002474
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Revision information	Product and Company Identification: Product and Company Identification Accidental release measures: Personal precautions, protective equipment and emergency procedures Accidental release measures: Methods and materials for containment and cleaning up Handling and storage: Conditions for safe storage, including any incompatibilities Physical & Chemical Properties: Multiple Properties Physical and chemical properties: Oxidizing properties Physical and chemical properties: Explosive properties Transport Information: Agency Name, Packaging Type, and Transport Mode Selection GHS: Classification