

Page 1 of 7

99-0703-1

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date:

04/01/2011

Ι.	PRODUCT IDEN	ITIFICATION				CHEN	MICAL	RESPC	NSE (	CARD	: 91
1.1	Product Name:	K & N AIR FI	LTER SEALING	G GREAS	 E	RESPO	NSE	$\bigcirc$	(22)	5	λ
.2	Chemical Name:	See ingredients lis		<u> </u>		TEAM	PPE:		1	( 350	)
.3	Synonyms:	K & N Air Filter Sea	aling Grease, Sodi	um Grease #	2		_	<b>(</b>			
.4	Trade Names:	K & N Air Filter Sea	aling Grease			WHMI	S:	(!)			
.5	Product Use:	Automotive - Lub				HEALT	H:				1
.6	Manufacturer's Name:	K&N Engineering,				FLAM		TΥ·			1
.7	Manufacturer's Address:	5 6	rerside, CA 92502-	1220 LISA			IVITY:				0
.8	Business Phone:			1327 USA				ROTEC	TION:		
.9	Emergency Phone:	+1 (800) 858-3333				-	/INAL I	KOILC	IIOIV.		В
	Emergency mone.	CHEMIREC	+1 (800) 424								
_	T., ., ., ., .,		2. IDENTI	FICATION	OF RISK	<u> </u>					
1	Hazard Identification:  This product is neith		AZADDOUS SUDST	ANCE	DANCEROUS	COOD:			-lifi -		
	Precautionary States not eat, drink or sm			312 - IF SWA	LLOWED: Call	a POISON	CENIER	or doct	or/physi	ician if	<b>900 10</b>
	not eat, drink or sm unwell; P330 - Rinse	oke when using this	s product; P301/P3					or doct	or/physi	ician if	y00 16
	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure:	oke when using this mouth; P501 - Dispo	s product; P301/P; se of contents/co Inhalation:	ntainer in ac	Absorption	local regu		Inges		ician if	YES
	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:	oke when using this mouth; P501 - Dispo an cause mild eye i an cause mild, skin wed, no significant o	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health eff	YES -term contact-term exposects are antice	Absorption t. ure. cipated. Inges	n local regun:	yES  ause na	Inges	tion:		YES
.3	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallo' INHALATION: No sig Symptoms of Exposure:	oke when using this mouth; P501 - Dispo an cause mild eye i an cause mild, skin wed, no significant o inificant adverse hea	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health eff	YES -term contact-term exposects are antice	Absorption t. ure. cipated. Inges	n local regun:	yES  ause na	Inges	tion:		YES
.3	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallo INHALATION: No sig Symptoms of Exposure: EYES: Irritation, redn	oke when using this mouth; P501 - Dispo an cause mild eye i an cause mild, skin wed, no significant adverse heart sess, and watering.	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effects are ex	rtainer in acc YES -term contact t-term exposicets are anticepected to occ	Absorption t. ure. cipated. Inges	n local regun:  n:  N  tion can continue the state of the	ulations. YES ause na osure to	Inges	tion:		YES
.3	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallow INHALATION: No sig Symptoms of Exposure: EYES: Irritation, redn SKIN: Possible irritati	can cause mild eye is an cause mild, skin wed, no significant adverse here.  ess, and watering, or derived.	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effects are extractions are extractionally and the statement of the	rtainer in accommendation of the second of t	Absorption t. ure. cipated. Inges cur upon show	n local regun:  n:  N  tion can continue the state of the	ulations. YES ause na osure to	Inges	tion:		YES
.3	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallor INHALATION: No sig Symptoms of Exposure: EYES: Irritation, redn SKIN: Possible irritati INGESTION: Laxative	oke when using this mouth; P501 - Dispo an cause mild eye in an cause mild, skin wed, no significant adverse here ess, and watering. It is in the effects. Gastrointed	s product; P301/P: se of contents/co Inhalation: irritation with short irritation with short adverse health effeath effects are ex rmatitis (rash), cho estinal discomfort,	rtainer in acceptance of the results	Absorption t. ure. cipated. Inges cur upon show	n local regun:  n:  N  tion can continue the state of the	ulations. YES ause na osure to	Inges	tion:		YES
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallow INHALATION: No sig Symptoms of Exposure: EYES: Irritation, redn SKIN: Possible irritati	oke when using this mouth; P501 - Dispo an cause mild eye in an cause mild, skin wed, no significant adverse here ess, and watering. It is in the effects. Gastrointed	s product; P301/P: se of contents/co Inhalation: irritation with short irritation with short adverse health effeath effects are ex rmatitis (rash), cho estinal discomfort,	rtainer in acceptance of the results	Absorption t. ure. cipated. Inges cur upon show	n local regun:  n:  N  tion can continue the state of the	ulations. YES ause na osure to	Inges	tion:		YES
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product con in	can cause mild eye in an cause mild eye in an cause mild, skin wed, no significant adverse head ess, and watering. It is in the effects. Gastrointer ause irritation to the	s product; P301/P: se of contents/co Inhalation: irritation with short irritation with short adverse health effeath effects are ex rmatitis (rash), cho estinal discomfort, e upper respiratory	rtainer in acceptance of the results	Absorption t. ure. cipated. Inges cur upon show	n local regun:  n:  N  tion can continue the state of the	ulations. YES ause na osure to	Inges	tion:		YES
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallor INHALATION: No sig Symptoms of Exposure: EYES: Irritation, redn SKIN: Possible irritati INGESTION: Laxative INHALATION: May c Acute Health Effects:	can cause mild eye is an cause mild, skin wed, no significant adverse heart ess, and watering, ion, defatting, or derected irritation to the ang, but will not injure	s product; P301/P: se of contents/co Inhalation: irritation with short irritation with short adverse health effeatth effects are ex rmatitis (rash), cho estinal discomfort, a upper respiratory	rtainer in acc YES  -term contact t-term expositects are antice pected to occurrent acceptate to occurrent accepta	Absorption  t.  cipated. Ingest cur upon short  y dry, scaling, headache.	n local regun:  n:  N  tion can continue the state of the	ulations. YES ause na osure to	Inges	tion:		YES
	not eat, drink or sm unwell; P330 - Rinse Routes of Entry: Effects of Exposure: EYES: This product c SKIN: This product c INGESTION: If swallor INHALATION: No sig Symptoms of Exposure: EYES: Irritation, redn SKIN: Possible irritati INGESTION: Laxative INHALATION: May c Acute Health Effects: EYES: Slightly irritatir	can cause mild eye is an cause mild, skin wed, no significant adverse heart ion, defatting, or derected irritation to the sause irritation to the frequent or prolonger	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are extracted in the street of	ritate the skir	Absorption tt. ure. cipated. Inges cur upon short y dry, scaling, headache.	tion can co	yES  ause na osure to g skin.	Inges	tion:		YES
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product con ingestion: If swallor indestion: Ingestion in the inge	an cause mild eye in an cause mild, skin wed, no significant adverse her ess, and watering. It is a cause irritation to the eng, but will not injure frequent or prolonge icity. Laxative effects at the elevated in the eleva	s product; P301/P: se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are ex rmatitis (rash), cho estinal discomfort, e upper respiratory e eye tissue. ed contact may intended the contest may be contested to the contested	ritate the skir	Absorption  t.  ure.  cipated. Inges  cur upon short  y dry, scaling, headache.	tion can continued the second	yES  ause na osure to g skin.	usea, vo	tion:	diarrhe	YES a.
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product con ingestion: If swallor in the ingestion in the ingestio	an cause mild eye in an cause mild, skin wed, no significant adverse her ess, and watering. It is a cause irritation to the eng, but will not injure frequent or prolonge icity. Laxative effects at the elevated in the eleva	s product; P301/P: se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are ex rmatitis (rash), cho estinal discomfort, e upper respiratory e eye tissue. ed contact may intended the contest may be contested to the contested	ritate the skir	Absorption  t.  ure.  cipated. Inges  cur upon short  y dry, scaling, headache.	tion can continue the state of	yES  ause na osure to g skin.	usea, vo	tion:	diarrhe	YES a.
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product condense in the second in t	an cause mild eye in an cause mild, skin wed, no significant adverse heaters, and watering, ion, defatting, or derected in the cause irritation to the ing, but will not injure frequent or prolonge icity. Laxative effects in the cause irritation to the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity.	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are extracted in the street of	ritate the skir al discomfort, through mec	Absorption  tt.  ure.  cipated. Inges  cur upon short  y dry, scaling, headache.  nausea and hanical actio	red, itching	ulations. YES  ause na osure to g skin.  m vapo	usea, vo	tion: omiting, duct.	diarrhe	YES
4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product con ingestion: If swallor in the ingestion in the ingestio	an cause mild eye in an cause mild, skin wed, no significant adverse heaters, and watering, ion, defatting, or derected in the cause irritation to the ing, but will not injure frequent or prolonge icity. Laxative effects in the cause irritation to the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the ing, but will not injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity. Laxative effects in the injure frequent or prolonge icity.	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are extracted in the street of	ritate the skir al discomfort, through mec	Absorption  tt.  ure.  cipated. Inges  cur upon short  y dry, scaling, headache.  nausea and hanical actio	red, itching	ulations. YES  ause na osure to g skin.  m vapo	usea, vo	tion: omiting, duct.	diarrhe	YES
.4	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product condense in the second in t	can cause mild eye is an cause mild, skin wed, no significant conficient adverse here.  ess, and watering, ion, defatting, or dere effects. Gastrointe cause irritation to the eng, but will not injure frequent or prolonge icity. Laxative effects inose, throat and luited skin contact can end of the	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are extracted in the street of	ritate the skir al discomfort, through mec	Absorption  tt.  ure.  cipated. Inges  cur upon short  y dry, scaling, headache.  nausea and hanical actio	red, itching	ulations. YES  ause na osure to g skin.  m vapo	usea, vo	tion: omiting, duct.	diarrhe	YES
2.2 2.3 2.3 2.4 2.4 2.5	not eat, drink or sm unwell; P330 - Rinse Routes of Entry:  Effects of Exposure:  EYES: This product condense in the second in t	can cause mild eye is an cause mild, skin wed, no significant dinificant adverse her ess, and watering. It is a cause irritation to the effects. Gastrointe cause irritation to the requent or prolonge icity. Laxative effects inose, throat and luited skin contact can be manufacturer.	s product; P301/P; se of contents/co Inhalation:  irritation with short irritation with short adverse health effeatth effects are extracted in the street of	ritate the skir al discomfort, through mec	Absorption  tt.  ure.  cipated. Inges  cur upon short  y dry, scaling, headache.  nausea and hanical actio	red, itching	ulations. YES  ause na osure to g skin.  m vapo	usea, vo	tion: omiting, duct.	diarrhe	YES  a.  may I

NOTE: All WHMIS required information is included – it is located in appropriate sections based on the ANSI Z400.1-2004 format.



Page 2 of 7

99-0703-1

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date:

04/01/2011

### 3. COMPOSITION & INGREDIENTS

							<b>EXPOS</b>	SURE LI	MITS IN	AIR (r	mg/m³	)	
					AC	GIH		NOHSC			<b>OSHA</b>		
					pp	m		ppm			ppm		OTHER
							ES-	ES-	ES-				
CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	TLV	STEL	TWA	STEL	PEAK	PEL	STEL	IDLH	
DISTILLATES, PETROLEUM,													
HYDROTREATED HEAVY	64742-52-5	NA	265-155-0	≤ 70.0	(5)	NA	NF	NF	NF	(5)	NA	NA	MIST
NAPHTHENIC													
RESIDUAL OILS, PETROLEUM,	64742-01-4	NA	64742-01-4	200	(E)	NIA	NF	NF	NE	(E)	NIA	NIA	AAICT
SOLVENT-REFINED	04/42-01-4	INA	04/42-01-4	≤ 30.0	(5)	NA	INF	INF	NF	(5)	NA	NA	MIST

### 4. FIRST AID

4.1 First Aic

<u>EYES</u>: Check for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain persists.

<u>SKIN</u>: Remove contaminated shoes and clothing. Wipe off excess material. Wash exposed skin with soap and water. Seek medical attention if tissue appears damaged or if irritation persists. Thoroughly clean contaminated clothing before reuse. Discard contaminated leather goods. If material is injected under the skin, into muscle, or into the bloodstream, seek medical attention immediately.

<u>INGESTION</u>: Do not induce vomiting unless directed to by a physician. Do not give anything to drink unless directed to by a physician. Never give anything by mouth to a person who is not fully conscious. Seek medical attention immediately.

INHALATION: Vaporization is not expected at ambient temperatures. This material is not expected to cause inhalation-related disorders under anticipated conditions of use. In case of overexposure, move the person to fresh air.

4.2 Medical Conditions Aggravated by Exposure:

Personnel with pre-existing skin disorders should avoid repeated or prolonged contact with this product.

HEALTH		1		
FLAMM		1		
REACTI		0		
PROTEC	CTIVE EQ	UIPMEN	T	В
EYES	SKIN			

### 5. FIRE & EXPLOSION HAZARDS

5.1	Flashpoint & Method:	

### > 224 °C (> 435 °F), COC

5.2 Autoignition Temperature:

> 343 °C (650 °F)

5.3	Flammability Limits:	Lower Explosive Limit (LEL):	ND	Upper Explosive Limit (UEL):	ND
-----	----------------------	------------------------------	----	------------------------------	----

5.4 Fire & Explosion Hazards:

This material can burn but will not readily ignite. This material will release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point. Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and trace oxides of barium, sulfur, phosphorus, zinc and nitrogen. Also, depending upon the conditions of use, low concentrations of hydrogen sulfide can be released.

5.5 Extinguishing Methods:

Dry chemical, foam, carbon dioxide, and water fog.

5.6 Firefighting Procedures:

Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personal. Avoid spraying water directly into storage containers because of danger of boil over. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.





Page 3 of 7

99-0703-1

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date:

04/01/2011

### 6. SPILLS & LEAKS

6.1 Spills:

Secure spill area, remove or minimize all sources of ignition, and maximize ventilation. Stop spill or leak at source if safely possible. Deny entry to all unprotected individuals. Individuals involved in the cleanup must wear appropriate personal protective equipment. Recover free liquid or cover with inert absorbent material and place into appropriate container(s) for disposal. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers or any natural waterway or drinking supply. Contact appropriate local and/or provincial authorities for assistance and/or reporting requirements. For water spills, remove from surface by skimming or with suitable absorbents. If allowed by federal & provincial environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on disposal of recovered material. Ensure disposal on compliance with government requirements & secure conformity to local disposal regulations. Notify the appropriate federal & provincial authorities immediately. Take all additional action necessary to prevent & remedy the adverse effects of the spill.

### 7. STORAGE & HANDLING

7.1 Work & Hygiene Practices:

Use normal hygiene practices. Avoid direct skin contact. Wash hands thoroughly after using this product and before eating, drinking, or smoking.

7.2 Storage & Handling:

Use and store in a cool, dry, well-ventilated area. Keep away from excessive heat, open flames, sparks, and other possible sources of ignition. Do not store in unmarked containers or storage devices.

7.3 Special Precautions:

Empty containers may contain product residue. Do not pressurize, cut, heat or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

### 8. EXPOSURE CONTROL & PERSONAL PROTECTION

8.1 Ventilation & Engineering Controls:

The use of mechanical dilution ventilation is recommended to maintain airborne concentrations below the recommended occupational exposure limits, whenever this material is used in a confined space, is heated above normal temperatures (up to 38°C) or is agitated.

8.2 Respiratory Protection

Vaporization or misting is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).

8.3 Eye Protection:

Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.

8.4 Hand Protection:

Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. Use heat-protective gloves when handling product at elevated temperatures.

8.5 Body Protection

Avoid prolonged and/or repeated skin contact. Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing should include long-sleeves, apron, boots and additional facial protection. Remove oil contaminated clothing. Launder oil contaminated clothing before reusing. Contaminated leather goods should be removed promptly and discarded.



Page 4 of 7 **99-0703-1** 

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 04/01/2011

1	Density:	9. PHYSICAL & CHEMICAL PROPERTIES
2	Boiling Point:	0.90 g/cm³ @ 15.°C (60 °F)
3	Melting Point:	ND ND
4	Evaporation Rate:	< 0.01 (n-butyl acetate = 1.0)
5	Vapor Pressure @ 20°C:	< 0.1 mm Hg @ 20 °C (68 °F)
5	Molecular Weight:	NA
,	Appearance & Colour:	Amber Grease, Mild Petroleum Odor
3	Odour Threshold:	NA
)	Solubility:	Insoluble
0	pH:	ND ND
1	Viscosity:	ND .
12	Coefficient Oil/Water	
	Distribution:	ND
13	Additional Information:	Vapor Density > 5.0 (air = 1)
		10. STABILITY & REACTIVITY
. 1	Stobility	IV. SIADILIII & KLACIIVIII
).1	Stability: Stable under norma	al conditions.
).2	Decomposition Products:	
	i e	oon monoxide, metal oxides, and trace hydrocarbons.
0.3	Polymerization:  Will not occur.	
0.4	Conditions to Avoid:	
		ss, high heat, and close proximity to incompatible substances.
0.5	Incompatible Substances	
	Strong acids, alkali	s, and oxidizers.
		11. TOXICOLOGICAL INFORMATION
1 1	1	TI. TOXICOLOGICAL INTORMATION
1.1	•	ot been tested on animals to obtain toxicological data. There are toxicology data for the components of to found in the scientific literature. This data has not been presented in this document.
1.2	Acute Toxicity:	
1.3	See section 2.5	
۱.۵	Chronic Toxicity: See section 2.6	
1.4	Suspected Carcinogen:	
		I, IARC, NTP, or CA Proposition 65.
1.5	Reproductive Toxicity:	<u> </u>
	Mutagenicity:	This product is not expected to cause mutagenic effects in humans.
	Embryotoxicity:	This product is not expected to cause embryotoxic effects in humans.
	Teratogenicity:	This product is not expected to cause teratogenic effects in humans.
1 /	Reproductive Toxicity:	This product is not expected to cause reproductive harm in humans.
1.6	Irritancy of Product:	
1.7	Biological Exposure Indice	
	NA	
1.8	Medical Recommendation	
	upon ingestion the	ally. The viscosity range of the product(s) represented by this MSDS is greater than 400 SUS at 100°F. According re is a low risk of aspiration. Careful gastric lavage or emesis may be considered to evacuate large quantities eous or intramuscular injection requires prompt surgical debridement.



Page 5 of 7

99-0703-1

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 04/01/2011 12. ECOLOGICAL INFORMATION **Environmental Stability** Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl. 12 2 Effect on Plants & Animals An environmental fate analysis has not been conducted on this specific product. However, plants and animals may experience harmful or fatal effects when coated with petroleum-based products. 12.3 Effect on Aquatic Life Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway can result in a loss of marine life or create an anaerobic environment. This material contains phosphorus which is a controlled element for disposal in effluent waters in most sections of North America. Phosphorus is known to enhance the formation of algae. Severe algae growth can reduce oxygen content in the water possibly below levels necessary to support marine life. 13. DISPOSAL CONSIDERATIONS 13.1 Waste Disposal: Dispose of in accordance with federal & provincial hazardous waste laws. 13.2 If the material is unsuitable for recycling or reclamation, enclosed-controlled incineration is recommended unless otherwise prohibited by local ordinance. 14. TRANSPORTATION INFORMATION The basic description (ID Number, proper shipping name, hazard class & division, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR. 49 CFR (GND) **NOT REGULATED** 14.2 IATA (AIR): **NOT REGULATED** 14.3 IMDG (OCN): **NOT REGULATED** TDGR (Canadian GND) **NOT REGULATED** 14.5 ADR/RID (FU) **NOT REGULATED** 14.6 MEXICO (SCT): **NOT REGULATED** 14.7 ADGR (AUS): **NOT REGULATED** 



Page 6 of 7

99-0703-1

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards MSDS Revision: 1.0 MSDS Revision Date: 04/01/2011

### 15. REGULATORY INFORMATION

SARA Reporting Requirements:

This product does not contain any substances subject to SARA reporting requirements.

15.2 SARA Threshold Planning Quantity:

NΑ

15.3 TSCA Inventory Status:

The components of this product are listed on the TSCA inventory.

15.4 CERCLA Reportable Quantity (RQ):

NA

15.5 Other Federal Requirements:

NA

15.6 Other Canadian Regulations

> All chemical substances of this product are listed on the CEPA DSL/NDSL or are exempt from list requirements. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.



State Regulatory Information:

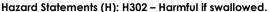
Distillates, Petroleum, Hydrotreated, Heavy Naphthenic is listed on one or more of the following state criteria lists California Right-to-Know; Florida Toxic Substances List; Minnesota Hazardous Substances List; New Jersey Right-to-Know List; Pennsylvania Hazardous Substances List; Rhode Island Hazardous Substances List; Massachusetts Right-to-Know List:

67/548/EEC (European Union) Requirements:

The primary component of this product is not listed in Annex I of EU Directive 67/548/EEC.

Xi - Irritant. Risk Phrases (R): 36- Irritating to eyes.

Safety Phrases (S): 2-13-24/25-26-45 - Keep out of reach of children. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).



Precautionary Statements (P) – see also section 15 of this Safety Data Sheet; P264 - Wash hands thoroughly after handling; P270 - Do not eat, drink or smoke when using this product; P301/P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell; P330 - Rinse mouth; P501 - Dispose of contents/container in accordance with local regulations.





### 16. OTHER INFORMATION

Other Information:

This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDSL. None of the components of this product are listed on the priorities substances list.

16.2 Terms & Definitions

Please see last page of this MSDS.

16.3

This Material Safety Data Sheet complies with Health Canada's Workplace Hazardous Materials Information System (WHMIS) & U.S. OSHA's Hazard Communication Standard, 29 CFR §1910.1200. To the best of ShipMate's or K & N Engineering's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not quaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product. Contact the manufacturer for additional information.

16.4 Prepared for: K & N Engineering, Inc.

> PO Box 1329 Riverside, CA 92502 Phone: +1 (800) 858-3333 Fax: +1 (951) 826-4001 e-mail: tech@knfilters.com



Prepared by

Steven Charles Hunt ShipMate, Inc. 780 Buckaroo Trail, Suite D Sisters, OR 97759 USA Phone: +1 (310) 370-3600

Fax: +1 (310) 370-5700 e-mail: shipmate@shipmate.com





Page 7 of 7

99-0703-1

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS & 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date:

04/01/2011

### **DEFINITIONS OF TERMS**

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

#### **GENERAL INFORMATION:**

EXPOSURE L	LIMITS IN AIK:
ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit

### FIRST AID MEASURES:

	Cardiopulmonary resuscitation - method in which a person whose heart
CPR	has stopped receives manual chest compressions and breathing to
	circulate blood and provide oxygen to the body.

### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

### **HEALTH, FLAMMABILITY & REACTIVITY RATINGS:**

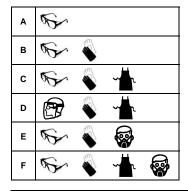
CAS No. Chemical Abstract Service Number

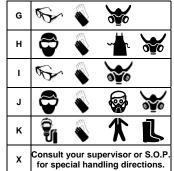
IDLH Immediately Dangerous to Life and Health

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard



#### PERSONAL PROTECTION RATINGS:









Face Shield & Eye Protection



Boots

**6** 

Vapor Respirator

Synthetic Apron

Dust & Vapor
Respirator





Note: the dotted circle indicates that this respiratory protective equipment is required for high concentrations or for large volume spills or releases of product.

### FLAMMABILITY LIMITS IN AIR:

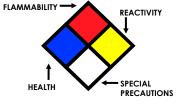
Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

### OTHER STANDARD ABBREVIATIONS:

NA	Not Available
NR	No Results
NE	Not Established
NF	Not Found
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
_W_	Use No Water
OX	Oxidizer



#### TOXICOLOGICAL INFORMATION:

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals s			
LC <sub>50</sub>	Lethal concentration (gases) which kills 50% of the exposed animal			
ppm	Concentration expressed in parts of material per million parts			
TD <sub>Io</sub>	Lowest dose to cause a symptom			
TCLo	Lowest concentration to cause a symptom			
TD <sub>Io</sub> , LD <sub>Io</sub> , & LD <sub>o</sub> or TC, TC <sub>o</sub> , LC <sub>Io</sub> , & LC <sub>o</sub>	Lowest dose (or concentration) to cause lethal or toxic effects			
IARC	International Agency for Research on Cancer			
NTP	National Toxicology Program			
RTECS	Registry of Toxic Effects of Chemical Substances			
BCF	Bioconcentration Factor			
TL <sub>m</sub>	Median threshold limit			
log K <sub>ow</sub> or log K <sub>oc</sub>	Coefficient of Oil/Water Distribution			

### REGULATORY INFORMATION:

CPR	Canada's Controlled Product Regulations
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
EU	European Union (European Union Directive 67/548/EEC)
DSL	Canadian Domestic Substance List
MAK	Mandat und die Arbeitsweise der Kommission (Work Area Commission)
NDSL	Canadian Non-Domestic Substance List
NOHSC	National Occupational Health & Safety Code (Australia)
PSL	Canadian Priority Substances List
TC	Transport Canada
TSCA	U.S. Toxic Substance Control Act
WHMIS	Canadian Workplace Hazardous Material Information System

### EC INFORMATION:

			*			X	X
С	Е	F	N	0	T+	Xi	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful

### WHMIS INFORMATION:

$\oslash$		(8)		(1)	<b>®</b>		
Α	В	С	D1	D2	D3	Е	F