AMERICA'S CHOICE DIESEL MOTOR OILS

MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **AMERICA'S CHOICE DIESEL MOTOR OIL**
AMERICA'S CHOICE DIESEL MOTOR OIL CID
AMERICA'S CHOICE DIESEL MOTOR OIL SHO-M
AMERICA'S CHOICE DIESEL MOTOR OIL SHD-ML
AMERICA'S CHOICE DIESEL MOTOR OIL XHD
AMERICA'S CHOICE DIESEL MOTOR OIL XHD-2
Includes grades 10W30; 15W-40, 20W20; 10W;30; 40; 50.
MIL-PRF-2104G 15W-40; 30; 40; 10W.

SYNONYMS: Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant.

PRODUCT CODE: Prefix 22

PRODUCT USE: For lubricating diesel engines.
If these products are used in combination with other products, refer to the Material Safety Data Sheet for those products.

24-HOUR EMERGENCY PHONE NUMBERS

These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.	MEDICAL:	TRANSPORTATION (SPILL):
	1-800-752-7869	1-800-468-1760

SUPPLIER: Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, Texas 75024
USA
1-800-669-5740
www.Safety-Kleen.com

TECHNICAL INFORMATION: 1-800-669-5740 Press 1 then 1 then Enter 7500

MSDS FORM NUMBER: 82506 **ISSUE:** February 5, 2004

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PREPARED BY: Product MSDS Coordinator **APPROVED BY:** MSDS Task Force

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%*	NAME	SYNONYM	CAS NO.	OSHA PEL** TWA mg/m^3	OSHA PEL** STEL	ACGIH TLV® TWA mg/m^3	ACGIH TLV® STEL mg/m^3	LD[a] mg/kg	LC[b]
35-95	Lubricating oils, petroleum, hydrotreated spent	Hydrotreated paraffinic base oil	64742-58-1	5[c]	N. Av.	5[c]	10[c]	N. Av. (>2000)[d]	N. Av.
0-55	Residual oils (petroleum), solvent dewaxed	Bright stock	64742-62-7	5[c]	N. Av.	5[c]	10[c]	>10000 (>2000)[d]	N. Av.
0-55	Residual oils (petroleum), hydrotreated	Bright stock	64742-57-0	5[c]	N. Av.	5[c]	10[c]	N. Av.	N. Av.
0-55	Lubricating oils (petroleum), C>25, hydrotreated bright stock	Bright stock	72623-83-7	5[c]	N. Av.	5[c]	10[c]	>5000 (>3000)[d]	N. Av.
0-55	Petroleum distillates, solvent-refined heavy paraffinic	N. Av.	64741-88-4	5[c]	N. Av.	5[c]	10[c]	N. Av.	N. Av.
0-55*	Residual oils (Petroleum) Solvent Refined	Bright stock	64742-01-4	5[c] mg/m^3	N. Av.	5[c] mg/m^3	10[c] mg/m^3	N. Av.	N. Av.
0-36	Petroleum distillates, hydrotreated heavy paraffinic	N. Av.	64742-54-7	5[c]	N. Av.	5[c]	10[c]	N. Av.	N. Av.
0-11	Lubricating oils, petroleum, C15-30, hydrotreated neutral oil-based	N. Av.	72623-86-0	5[c]	N. Av.	5[c]	10[c]	N. Av.	N. Av.
0-10	Polyolefin	N. Av.	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0-6	Distillates (petroleum), solvent dewaxed heavy paraffinic	N. Av.	64742-65-0	5[c]	N. Av.	5[c]	10[c]	N. Av.	N. Av.
0-6	Polyolefin amide alkeneamine	N. Av.	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0-2.25	Calcium sulfonate	N. Av.	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0-2	Alkylamin	N. Av.	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0-2	Alkylated phenol	N. Av.	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0-1.5	Calcium phenate	N. Av.	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.
0-1.5	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Diphenylamine, diisobutylene reaction product	68411-46-1	N. Av.	N. Av.	N. Av.	N. Av.	>5000	N. Av.
0-1.5	Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	Dialkyl (C1-C14) dithiophosphoric acid, zinc salt	68649-42-3	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.

**OSHA Final PEL value (enforceable). Some States have adopted more stringent values.

N. Av. = Not Available
* Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

***Supplier advises that this is a trade secret
[a]Oral-Rat LD_{50}
[b]Inhalation-Rat LC_{50}

[c]Based on Oil mist, mineral
[d]Skin-Rabbit LD_{50} (mg/kg)

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE
Liquid, amber, petroleum odor.

CAUTION!

HEALTH HAZARDS
May irritate the respiratory tract (nose, throat, and lungs), eyes, and skin.
May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): These products are not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs).

EYES: May cause irritation.

SKIN: May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

INGESTION (SWALLOWING): May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

CANCER INFORMATION: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.
Also see **SECTION 15: CALIFORNIA**.

POTENTIAL ENVIRONMENTAL EFFECTS

Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION**.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

SKIN: Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency.

INGESTION (SWALLOWING): Do NOT induce vomiting. Immediately get medical attention. Call 1-800-752-7869 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-752-7869 for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 392°F (200°C) (minimum) Cleveland Open Cup

FLAMMABLE LIMITS IN AIR: **LOWER:** Not available **UPPER:** Not available

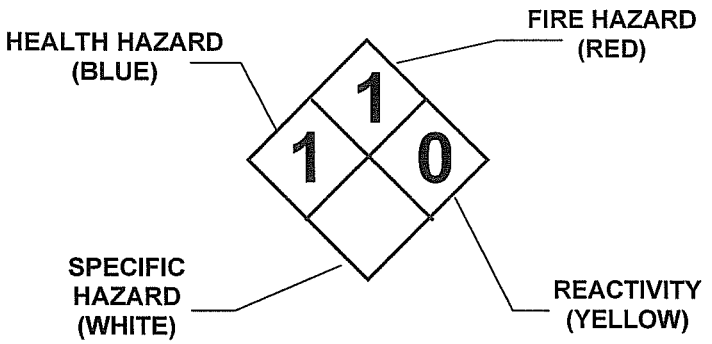
AUTOIGNITION TEMPERATURE: Not available

HAZARDOUS COMBUSTION PRODUCTS: Decomposition and combustion materials may be toxic. Burning may produce aldehydes, hydrogen sulfide, alkyl mercaptans, sulfides, boron oxides, calcium oxides, magnesium oxides, molybdenum oxides, phosphorus oxides, nitrogen oxides, zinc oxides, sulfur oxides, carbon monoxide, and other unidentified organic compounds.

CONDITIONS OF FLAMMABILITY: Sparks or flame. Product may burn, but does not ignite readily.

EXTINGUISHING MEDIA: Carbon dioxide, regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

NFPA 704 HAZARD IDENTIFICATION: This information is intended solely for the use by individuals trained in this system.



FIRE FIGHTING INSTRUCTIONS: Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

FIRE AND EXPLOSION HAZARDS: Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Products are not sensitive to mechanical impact or static discharge.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING: Keep away from sparks or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. These products have a low vapor pressure and are not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

SHIPPING AND STORING: Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: No respiratory protection is normally required. Use NIOSH-certified P- or R-series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

EYE PROTECTION: Wearing chemical goggles is recommended. Contact lens use is not recommended without eye protection.

SKIN PROTECTION:	No skin protection is normally required. Where skin contact is likely, wear neoprene, nitrile (4 mil minimum), PVC (polyvinyl chloride), or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended. When products are heated and skin contact is likely, wear heat-resistant gloves, boots, and other protective clothing. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.
PERSONAL HYGIENE:	Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with these products.
OTHER PROTECTIVE EQUIPMENT:	Where spills and splashes are likely, facilities storing or using these products should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, AND ODOR:	Liquid, amber, petroleum odor.
ODOR THRESHOLD:	Not available
MOLECULAR WEIGHT:	Not applicable
SPECIFIC GRAVITY:	0.88 (water = 1) (approximately)
DENSITY:	7.3 LB/US gal (880 g/l) (approximately)
VAPOR DENSITY:	Not available
VAPOR PRESSURE:	less than 0.1 mmHg at 68°F (20°C)
BOILING POINT:	475°F (246°C) (minimum)
FREEZING/MELTING POINT:	Not available [pour point 16°F (-9°C) (maximum)].
pH:	Not applicable
EVAPORATION RATE:	Not available

SOLUBILITY IN WATER:	Insoluble
FLASH POINT:	392°F (200°C) (minimum) Cleveland Open Cup
FLAMMABLE LIMITS IN AIR:	**LOWER:** Not available **UPPER:** Not available
AUTOIGNITION TEMPERATURE:	Not available

SECTION 10: STABILITY AND REACTIVITY

STABILITY:	Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.
INCOMPATIBILITY:	Avoid oxidizing agents, acids and reactive halogens.
REACTIVITY:	Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.
HAZARDOUS DECOMPOSITION PRODUCTS:	None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS**.

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION:	Based on best current information, there is no known human sensitization associated with these products.
MUTAGENICITY:	Experimental evidence suggests that these products do not cause mutagenesis.
CARCINOGENICITY:	Based on best current information, there is no known carcinogenicity as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Also see **SECTION 15: CALIFORNIA**.
REPRODUCTIVE TOXICITY:	Based on best current information, there is no known reproductive toxicity associated with these products. Also see **SECTION 15: CALIFORNIA**.

TERATOGENICITY:	Based on best current information, there is no known teratogenicity associated with these products.
TOXICOLOGICALLY SYNERGISTIC PRODUCT(S):	Based on best current information, there are no known toxicologically synergistic products associated with these products.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:	Not available
OCTANOL/WATER PARTITION COEFFICIENT:	Not available
VOLATILE ORGANIC COMPOUNDS:	100 WT%; 7.3 LB/US gal; 880 g/l (approximately) As per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL:	Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.
USEPA WASTE CODE(S):	These products, if discarded, are not expected to be a characteristic or listed hazardous waste. If recycled in the USA, they must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of these products.

SECTION 14: TRANSPORT INFORMATION

DOT:	**Shipping Name:** Not regulated.
TDG:	**Shipping Name:** NOT REGULATED.
EMERGENCY RESPONSE GUIDE NUMBER:	Not applicable. Reference *North American Emergency Response Guidebook*

SECTION 15: REGULATORY INFORMATION

USA REGULATIONS

SARA SECTIONS 302 AND 304: Based on the ingredient listed in **SECTION 2**, these products do not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA SECTIONS 311 AND 312: This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard

SARA SECTION 313: These products contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Material	CAS
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (under the zinc compounds category)	68649-42-3

CERCLA: Based on the ingredients listed in SECTION 2, these products do not contain any "hazardous substances" listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

TSCA: All the components of these products are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

CALIFORNIA: These products may contain detectable amounts of acetaldehyde CAS 75-07-0, arsenic CAS 7440-38-2, benzene CAS 71-43-2, 1,3-butadiene CAS 106-99-0, cadmium CAS 7440-43-9 and lead CAS 7439-92-1 from additives. These products may contain a detectable amount of benzo(a)anthracene CAS 56-55-3, benzo(b)fluoranthene CAS 205-99-2, benzo(k)fluoranthene CAS 207-08-9, benzo(a)pyrene CAS 50-32-8, chrysene CAS 218-01-9, dibenz(a,h)anthracene CAS 53-70-3 and indeno(1,2,3-cd)pyrene CAS 193-39-5. WARNING: These chemicals are known to the State of California to cause cancer. Our testing of these products indicates that these chemicals are not always detectable.

These products may contain a detectable amount of arsenic CAS 7440-38-2, benzene CAS 71-43-2, cadmium CAS 7440-43-9 and lead CAS 7439-92-1from additives. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

CANADIAN REGULATIONS

These products have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

WHMIS: Not regulated.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All the components of these products are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

SECTION 16. OTHER INFORMATION

REVISION INFORMATION: This MSDS has been revised in the following sections:
Section 1: Product Name

LABEL/OTHER INFORMATION: Not available

safety-kleen ®

ISO 9001/2000 Registered

Typical Properties

RHT BASE OILS

East Chicago and Breslau Refineries

Note: The values are representative of current production and may vary within modest ranges.

Property	ASTM Test Method	RHT 70	RHT 85	RHT 120	RHT 150	RHT 240
Viscosity, cSt @ 100C	ASTM D445	2.9	3.8	4.6	5.1	7.0
Viscosity, cSt @ 40C	ASTM D445	11.8	17.5	24.5	28.6	46.0
Viscosity Index	ASTM D2270	86	99	101	108	108
Copper Corrosion	ASTM D130	1a	1a	1a	1a	1a
Aniline Point, F	ASTM D611	202	212	219	226	234
Pour Point, C	ASTM D97	-18	-18	-15	-15	-12
Flash Point, C	ASTM D92	180	196	220	220	240
Specific Gravity, 60F	ASTM D1298	0.8580	0.8600	0.8610	0.8630	0.8670
Color	ASTM D1500	L1.0	L1.0	L1.0	L1.0	L1.0
Sulfur, ppm	ASTM D5185	250	250	250	250	340
Refractive Index	ASTM D1218	1.4746	1.4738	1.4745	1.4742	1.4771
Sulfated Ash, %	ASTM D874	<0.04	<0.04	<0.04	<0.04	<0.04
Molecular Weight	ASTM D2502	325	340	400	400	470
Noack Distillation, wt%	D5800	-	36	16	15	8
Volatility, wt%	D972	-	0.12	0.37	N/A	N/A
Modified Ames Assay	ASTM E 1687	Pass	Pass	Pass	Pass	Pass
Polycyclic Aromatic, %	IP346	<3.0	<3.0	<3.0	<3.0	<3.0
Clay-Gel, wt %	ASTM D2007					
Saturates		85	88	90	90	89
Aromatics		14.7	11.8	9.8	9.7	10.7
Polar Compounds		0.3	0.2	0.2	0.3	0.3

Hydrotreated paraffinic process oils, offer great additive solvency, good color stability, low volatility for multifunctional blending. All process oils pass modified Ames test requirements.