

COTIZACION

LUBRICANTES

RUC - 12909-0233-127655 DV83
 Para pedidos: 279-2902-279-2903
 Fax: 274-1722
 email: pedidoslubes@petrodelta.com



Fecha: 24-sep.-25

Cliente: **TRANSPORTE MASIVO DE PANAMA**
 Departamento: **COMPRAS**
 Atencion: **JUAN LOPEZ**

Fax: _____
 Refer.: _____

No.	Cantidad	Unidad	DESCRIPCION	Precio Unitario	Precio Total
1	63	TANQUES DE 55 GLS	MOBIL DELVAC EXT LIFE 50/50 (COOLANT)	339.00	21,357.00
2	7	BALDES DE 5 GLS	MOBIL DELVAC EXT LIFE 50/50 (COOLANT)	53.29	373.03
				Sub-Total	21,730.03
				ITBM	
				TOTAL	21,730.03

FORMA DE PAGO

☐ Contado
☒ Credito a 30 dias
☐ Otro:

Estamos a su entera disposición para cualquier consulta.
 Atentamente:

Ing Roberto E. Boyd
 Lubricantes Delta, S. A.
 Tel. 279-3080
 Cel. 6616-0125
 e-mail: rboyd@petrodelta.com



PLAN DE CONTINGENCIA SOBRE ENTREGA TARDIA DE LUBRICANTES

PROCEDIMIENTO DE RECLAMO DE ENTREGA TARDIA DE LUBRICANTES

Este documento detalla los pasos a seguir en caso de encontrar un problema de tardanza en el proceso de la entrega. Delta no aceptará reclamos si no se siguen los pasos y tiempos establecidos en este documento:

- El Cliente debe proceder a enviar al centro de servicio al cliente la plantilla con los productos que está solicitando acompañado de la orden de compra antes de las 3:00 pm para poder recibir el producto dentro de un periodo próximo de 24 horas posteriores a la confirmación de ingreso del pedido.
- Si el cliente ha realizado el procedimiento arriba indicado y han pasado las 24 horas desde que realizó su pedido, el cliente debe comunicarse inmediatamente con su Ejecutivo de Ventas para notificar la tardanza.
- El Ejecutivo de Ventas, debe notificar este reporte a bodega, para que investiguen de inmediato la ubicación del vehículo que transporta el pedido y el tiempo de entrega.
- Si el vehículo de entrega ha sufrido algún percance mecánico, el Ejecutivo de venta, debe notificar al cliente para que el mismo determine la urgencia del pedido.
- Si el pedido es urgente, Delta solicitará apoyo logístico a otro vehículo para cumplir con la entrega en las horas restantes del día laboral.
- Si el pedido no es urgente, Delta reprogramará la entrega del pedido para el día posterior al incidente.



PLAN DE CONTIGENCIA PARA DERRAME DE PRODUCTO

1. PERSONAL INVOLUCRADO.

Jefe de Bodega de Lubricantes – Transporte Masivo de Panamá/ Auxiliar de despacho – Transporte Masivo de Panamá / Transportista.

2. ALCANCE.

Establecer el procedimiento para el control de derrames de aceite.

3. IMPORTANTE.

- El procedimiento debe de ser realizado por personal de bodega y seguir a cabalidad el procedimiento que se describirá en el punto 4.
- Es obligatorio utilizar los equipos de protección personal adecuados para el manejo de los productos y seguir las recomendaciones establecidas según las hojas de seguridad del material.
- El jefe de bodega debe documentar todo el procedimiento para dejar evidencia de la contención del derrame.

4. OTROS

Si el proceso de tratamiento de derrame se realiza en las instalaciones del cliente, este será dirigido por personal de Lubricantes Delta, S.A, en coordinación con el cliente de acuerdo a las normas de seguridad establecidas por el cliente.

5. PROCEDIMIENTO.

Ind.	Actividad	Descripción	Responsable
1	Inicio		
2	Cierre de fuente de derrame	Se deberá tapar, sellar, cerrar la fuente de la cual se haya originado el derrame.	Jefe de Bodega / Transportista / Auxiliares de Bodega.
3	Generación de barrera con material absorbente	El personal junto con el transportista deberá colocar, alrededor de la cantidad de aceite derramada, una cantidad considerable de material absorbente para evitar que el aceite se propague más.	Jefe de Bodega / Transportista / Auxiliares de Bodega.
4	Generar mezcla para limpieza	Una vez contenido el derrame será necesario generar una mezcla de arena seca con el aceite derramado, esto con la finalidad de que la arena se impregne del aceite vertido y sirva como medio para su recolección.	Auxiliares de bodega.
5	Recolección de mezcla arena – aceite	Una vez la arena se haya impregnado del aceite, deberá ser recogido mediante palas y depositada en bolsas plásticas de 25 libras para su debido transporte y deposición final.	Auxiliares de bodega.
6	Limpieza de superficie	Cuando se retire toda la arena, será necesario que se limpie la superficie con desengrasante y se coloque sobre ella material absorbente para garantizar que se removerá cualquier presencia de lubricante.	Auxiliares de bodega.
7	Disposición final	El material resultante de la limpieza será retirado por Compañía General de Equipos S.A de C.V para su tratamiento posterior.	Jefe de Bodega
8	Fin		



PLAN DE CONTINGENCIA SOBRE RECLAMO DE FALTANTE EN ENTREGA DE LUBRICANTES

PROCEDIMIENTO DE RECLAMO DE FALTANTE EN ENTREGAS DE LUBRICANTES

Este documento detalla los pasos a seguir en caso de encontrar un problema en el momento de la entrega. Delta no aceptará reclamos si no se siguen los pasos y tiempos establecidos en este documento:

- El Cliente debe utilizar el Procedimiento de Recibo de lubricante suministrado por Delta, para todas las entregas.
- El Transportista y el Cliente deben utilizar la Factura y el Check List de descarga suministrado por Delta. (Adjunto para su referencia)
- Si durante el procedimiento, antes de iniciar la descarga del producto lubricante, el Cliente encuentra algún problema o anomalía, o detecta incumplimiento en el procedimiento arriba indicado, éste deberá comunicarse de inmediato con el Ejecutivo de Ventas para informar los detalles o anomalía detectada.
- Solo después de seguir los procedimientos arriba indicados, pueden proceder a iniciar la descarga del lubricante.
- De igual manera, si durante el procedimiento, antes de iniciar la descarga del producto lubricante, el Transportista detecta algún incumplimiento en los puntos anteriores, este deberá notificar de inmediato a la bodega de Delta.
- En el caso específico de existir diferencias en la cantidad de galones facturados versus los galones disponibles para entrega, no se deben descargar y deben notificar al Ejecutivo de Ventas.

- El Ejecutivo de Ventas, debe notificar este reporte a bodega, para que investigue de inmediato y se puedan definir responsabilidades entre el Transportista y el Cliente en el caso de que posterior a la descarga, resulten faltantes.
- En el caso de que no exista faltante evidente en los envases dispuestos para entrega y todos los pasos anteriores se hayan cumplido a satisfacción, pero el cliente indique que recibió menos en sus tanques vs lo facturado, es necesario que el cliente proporcione los siguientes documentos (el mismo día de la entrega en casos diurnos), al momento de presentar un reclamo:
 1. Controles de Inventario
 2. Formulario de Reclamo
 3. factura debidamente firmada por el transportista y el cliente.
 4. Constancia de medidas iniciales tomadas antes y después de la descarga.
- El Ejecutivo de Ventas debe recibir del Cliente la documentación arriba indicada y analizarla, para posteriormente pasarla con su opinión al departamento de Operaciones para su análisis y revisión final.
- El encargado de Operaciones, tendrá un máximo de 4 días hábiles para dar una respuesta final al Ejecutivo de Ventas, indicando si el reclamo procede o no.
- El Ejecutivo de Ventas procederá a notificarle oficialmente al cliente el resultado de la investigación del reclamo presentado.
- Delta no aceptará reclamos si no se siguen los pasos y tiempos establecidos en este documento de “PROCEDIMIENTO DE RECLAMO DE FALTANTE EN ENTREGAS DE LUBRICANTES”



ExxonMobil Lubricants Trading Company

22777 Springwoods Village Parkway
Spring, Texas 77389-1425, USA

A 28 de septiembre del 2017

Atención: **TRANSPORTE MASIVO DE PANAMA, S.A.**

Ciudad de Panamá

Asunto: **CERTIFICACIÓN DE DISTRIBUIDOR AUTORIZADO**

Estimados señores:

En representación de **ExxonMobil Lubricants Trading Company (EMLT)**, compañía que representa a **Exxon Mobil Coporation** para los mercados atendidos completamente por distribuidores (FDS – Full Distributor Served), en Centro América y Caribe, por este medio certifico lo siguiente:

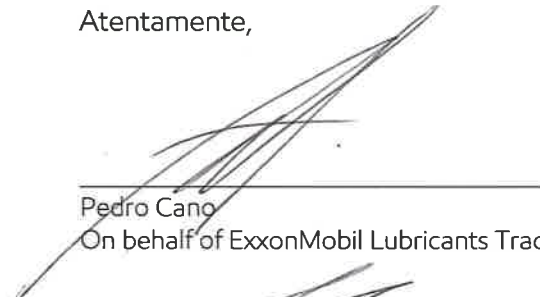
1. **LUBRICANTES DELTA, S.A.** ha sido distribuidor autorizado de los lubricantes y grasas de la marca MOBIL por los últimos diez (10) años, mismos y que han sido comercializados en la República de Panamá por diez (10) años o más.

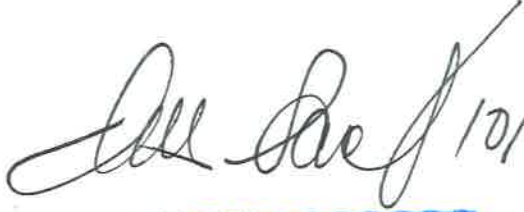
2. **LUBRICANTES DELTA, S.A.** cuenta, a través del Contrato de Distribución de Lubricantes, con el respaldo de garantía de calidad de los productos de la marca MOBIL comprados bajo los términos de dicho contrato. Información detallada sobre el alcance y limitantes para esta garantía se describe en el Anexo No. 1 de esta carta.

3. Esta garantía por defectos de calidad de los productos Mobil originalmente comprados por LUBRICANTES DELTA, S.A. se extiende a través de LUBRICANTES DELTA, S.A. a sus clientes locales, de acuerdo al alcance y limitantes descritas en el Anexo No. 1 de esta carta.

Sin más por el momento, nos despedimos de ustedes.

Atentamente,


Pedro Cano
On behalf of ExxonMobil Lubricants Trading Company

 10/14/2017



ANEXO No 1

CARTA DE CERTIFICACIÓN DE DISTRIBUIDOR AUTORIZADO

GARANTÍA LIMITADA DE PRODUCTO

ExxonMobil Lubricants Trading Company (EMLT) garantiza que los productos Mobil comprados por LUBRICANTES DELTA, S.A. cumplen en todo sentido con las especificaciones de ExxonMobil descritas en las Hojas de Información de Productos de ExxonMobil.

Esta garantía sobre defectos en calidad de algún producto Mobil originalmente comprado por LUBRICANTES DELTA, S.A. está limitada al costo de reparaciones, partes y mano de obra para cualquier motor o equipo, por daños atribuibles de manera directa y exclusiva a dicho defecto de calidad de producto.

Esta garantía será válida solamente si:

- Se confirma que el producto no fue adulterado
- El producto cumple con las especificaciones del fabricante del equipo
- El equipo ha sido usado dentro de los límites de operación, incluyendo velocidad, carga, temperatura e intervalo de drenado de aceite, especificado o recomendado por el fabricante del equipo
- El equipo tiene registros documentados de servicio regular dentro de los intervalos recomendados por el fabricante del equipo y tiene un buen historial de registros mantenimiento

GARANTÍA LIMITADA DE PRODUCTO para MOBIL DELVAC™ 1300 SUPER

Lo que incluye la garantía

- ExxonMobil Lubricants Trading Company, (en lo sucesivo "ExxonMobil") brinda esta garantía limitada a los compradores que utilizan el aceite para motores a diésel de servicio pesado Mobil Delvac™ 1300 Super en sus vehículos, según lo establecido por el fabricante de equipo original (en lo sucesivo "OEM", por sus siglas en inglés) y los requerimientos de la industria (por ejemplo, las normas establecidas por el Instituto Americano del Petróleo [American Petroleum Institute, API]). Esta garantía limitada cubre el lubricante adquirido, y las partes críticas del motor del vehículo lubricadas por dicho aceite.
- ExxonMobil garantiza que sus lubricantes están libres de defectos, y que el lubricante adquirido protegerá las partes críticas del motor de su vehículo contra fallas relacionadas con el aceite.
- Tenga en cuenta que si su vehículo está cubierto por una garantía, debe seguir las indicaciones del sensor de vida útil del aceite del vehículo, o cambiar el aceite de acuerdo

con el intervalo indicado en el manual del propietario para evitar cualquier inconveniente en su garantía del vehículo. Siga las indicaciones del manual del propietario, si el vehículo es operado bajo cualquiera de los siguientes servicios severos: carreras o actividades comerciales, incluyendo taxis, limusinas, etc.; remolque o transportación frecuente; condiciones extremadamente polvorientas o sucias; o condiciones de paro/arranque excesivo.

Lo que no incluye esta garantía

Esta garantía limitada excluye:

- El uso de los aceites para motores a diésel de servicio pesado Mobil Delvac™ 1300 Super en equipos mecánicamente deficientes como resultado de una operación anormal; negligencia; abuso; daños por eventualidades, envío o accidente; o modificación del equipo sin autorización por escrito del OEM
- Situaciones donde los estándares de lubricantes requeridos por el OEM que no coincidan con aquellos indicados por ExxonMobil, sin contar con el consentimiento por escrito de ExxonMobil
- El uso de los aceites para motores a diésel de servicio pesado Mobil Delvac™ 1300 Super junto con cualquier otro producto o aditivo cuyo uso no haya sido autorizado por ExxonMobil
- Falla del equipo debido a una condición preexistente que no esté relacionada con el uso del lubricante
- Reparación o reemplazo del equipo debido al desgaste normal
- Falla del vehículo o del lubricante debido a contaminación o agua

¿Cuál es el período de cobertura?

Esta garantía limitada será válida para el intervalo de cambio del aceite recomendado por el OEM, o un intervalo extendido de cambio del aceite del motor, aprobado por escrito por el OEM o por ExxonMobil, lo que sea mayor, sin importar la edad del vehículo. Otros requisitos adicionales incluyen:

- Los aceites deben ser puestos en servicio a más tardar cinco (5) años después de la fecha de compra, y
- Los cambios de aceite deben ser realizados de acuerdo con las indicaciones del manual del propietario del vehículo o conforme a las indicaciones emitidas por escrito por el OEM y/o por ExxonMobil

¿Qué haremos para corregir los problemas?

ExxonMobil reemplazará cualquier lubricante que esté defectuoso. Además, si hay una falla del equipo debido al lubricante que se compró, y el motor funcionaba normalmente en el momento que el aceite se instaló, sujeto a los requisitos y limitaciones indicadas en este documento, ExxonMobil pagará el costo de aquellas piezas y mano de obra que se considere razonablemente necesaria para reparar cualquier daño provocado al equipo, sin costo para usted, si se puede demostrar que el daño fue causado exclusivamente y directamente por un defecto o mal funcionamiento del lubricante.

¿Dónde puede obtener el servicio?

Para presentar una reclamación bajo esta garantía limitada, usted debe:

1. Comunicarse con su distribuidor de ExxonMobil al momento de descubrir el daño (pero a más tardar dos [2] meses después de la fecha en que ocurrió el daño), o escribir a: ExxonMobil Fuels, Lubricants & Specialties Marketing Company, Technical Support Manager, 22777 Springwoods Village Pkwy., Spring, TX 77389.. También puede llamar al 01 800 966 2910 o escribir a tsc.americas@exxonmobil.com para obtener la información de contacto de su ingeniero de ventas.
2. Permita que un representante de ExxonMobil verifique el comprobante de compra del lubricante de ExxonMobil; el equipo, incluyendo sus registros de operación y mantenimiento; y un registro histórico de las marcas y tipos de lubricantes que se utilizaron durante la vida del motor o equipo, a fin de determinar la magnitud de los daños y para confirmar que el lubricante fue la causa de los mismos.
3. Permítale a un representante de ExxonMobil obtener muestras representativas de lubricantes nuevos y usados para realizar análisis de laboratorio que ayuden a determinar la causa de la falla.

¿Cómo se relaciona la ley estatal con la garantía?

El recurso previsto por la presente garantía será su único remedio disponible en contra de ExxonMobil. Usted no será capaz de recuperar (y por medio de la presente, ExxonMobil niega toda responsabilidad por) daños especiales, incidentales (por ejemplo, costos de transporte de ida y vuelta para llegar al representante de ExxonMobil para inspección de los equipos, pérdida de uso, costos de remolque, pasajes, alquiler de automóviles u otros daños incidentales) o daños indirectos, lucro cesante o consecuentes (el costo de reparación o reemplazo de otros bienes que pudieran haber sido dañados porque el lubricante estaba defectuoso).

ESTA GARANTÍA LIMITADA SE OTORGA EN LUGAR DE OTROS RECURSOS Y GARANTÍAS DEL PRODUCTO LUBRICANTE, DE MANERA EXPRESA O IMPLÍCITA, INCLUYENDO PERO NO LIMITÁNDOSE A LA COMERCIALIZACIÓN O ADECUACIÓN PARA USO U OBJETO EN PARTICULAR.

Product Name: MOBIL DELVAC EXTENDED LIFE 50/50 PREDILUTED COOLANT/ANTIFREEZE
Revision Date: 01 Apr 2011
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MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: MOBIL DELVAC EXTENDED LIFE 50/50 PREDILUTED COOLANT/ANTIFREEZE
Product Description: Glycol
Product Code: 351010101596, 840439-00, 97AA97
Intended Use: Antifreeze/coolant

COMPANY IDENTIFICATION

Supplier: EXXON MOBIL CORPORATION
3225 GALLOWS RD.
FAIRFAX, VA. 22037 USA
24 Hour Health Emergency 609-737-4411
Transportation Emergency Phone 800-424-9300
ExxonMobil Transportation No. 281-834-3296
Product Technical Information 800-662-4525, 800-947-9147
MSDS Internet Address <http://www.exxon.com>, <http://www.mobil.com>

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

Reportable Hazardous Substance(s) or Complex Substance(s)

Name	CAS#	Concentration*
DIETHYLENE GLYCOL	111-46-6	1 - 5%
ETHYLENE GLYCOL	107-21-1	40 - 50%
INORGANIC SALTS AND ORGANIC ACID SALTS		< 2%

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

SECTION 3 HAZARDS IDENTIFICATION

This material is considered to be hazardous according to regulatory guidelines (see (M)SDS Section 15).

POTENTIAL HEALTH EFFECTS

May cause harm to the unborn child. Harmful or fatal if swallowed. Ingestion may cause serious adverse effects and may be fatal. May cause kidney failure and central nervous system effects. Prolonged exposure to elevated concentrations of mist or liquid may cause irritation of the skin, eyes, and respiratory tract. High-pressure injection under skin may cause serious damage.

Target Organs: Kidney | Reproductive system |

NFPA Hazard ID:	Health: 1	Flammability: 1	Reactivity: 0
HMIS Hazard ID:	Health: 2*	Flammability: 0	Reactivity: 0

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NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention.

NOTE TO PHYSICIAN

This product contains ethylene glycol and/or diethylene glycol which, if ingested, are metabolized to toxic metabolites by the enzyme alcohol dehydrogenase, for which ethanol and 4-methylpyrazole {U.S. drug name Fomepizole, trade name Antizol} are antagonists. Administration of oral or intravenous ethanol or intravenous 4-methylpyrazole may arrest further metabolism of this material and thereby ameliorate the toxicity. Use of ethanol or 4-methylpyrazole does not affect toxic metabolites that are already present and is not a substitute for hemodialysis.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water or Regular Foam

FIRE FIGHTING

Fire Fighting Instructions: Material will not burn. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

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Hazardous Combustion Products: Smoke, Fume, Aldehydes, Incomplete combustion products, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: N/A

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: >371°C (700°F)

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Do not touch or walk through spilled material. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Consult an expert. Warn other shipping. Material will sink. Remove material, as much as possible, using mechanical equipment.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Remove debris in path of spill and remove contaminated debris from shoreline and water surface and dispose of according to local regulations. Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7

HANDLING AND STORAGE

HANDLING

Avoid breathing mists or vapors. Avoid contact with skin. Prevent small spills and leakage to avoid slip hazard.

Static Accumulator: This material is not a static accumulator.

STORAGE

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Do not store in open or unlabelled containers.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Source	Form	Limit / Standard			NOTE	Source
DIETHYLENE GLYCOL		TWA	10 mg/m ³		N/A	AIHA WEEL
ETHYLENE GLYCOL	Aerosol.	Ceiling	100 mg/m ³		N/A	ACGIH

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No protection is ordinarily required under normal conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

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If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

Specific Hygiene Measures: 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. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

See Sections 6, 7, 12, 13.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

GENERAL INFORMATION

Physical State: Liquid

Color: Orange

Odor: Characteristic

Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 C): 1.07

Flash Point [Method]: N/A

Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D

Autoignition Temperature: >371°C (700°F)

Boiling Point / Range: 106C (223F) - 108C (226F)

Vapor Density (Air = 1): 2.1 at 101 kPa [n-Butyl Acetate]

Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 C

Evaporation Rate (n-butyl acetate = 1): N/D

pH: 8.6

Log Pow (n-Octanol/Water Partition Coefficient): < 2

Solubility in Water: Complete

Viscosity: <15.6 cSt (15.6 mm²/sec) at 40 C

Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: -37°C (-35°F)

Melting Point: N/D

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers, Strong Acids

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

HAZARDOUS POLYMERIZATION: Will not occur.

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SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Route of Exposure	Conclusion / Remarks
Inhalation	
Toxicity (Rat): LC50 > 5000 mg/m3	Minimally Toxic. Based on test data for structurally similar materials.
Irritation: Data available.	Negligible hazard at ambient/normal handling temperatures. Based on test data for structurally similar materials.
Ingestion	
Toxicity (Human): LDLo 100 ml	Moderately toxic. Based on test data for structurally similar materials.
Skin	
Toxicity (Rabbit): LD50 > 2000 mg/kg	Minimally Toxic. Based on test data for structurally similar materials.
Irritation (Rabbit): Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.
Eye	
Irritation (Rabbit): Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials.

CHRONIC/OTHER EFFECTS

Contains:

DIETHYLENE GLYCOL (DEG): Orally, DEG is more toxic to humans than animal test data indicate. Probable lethal dose for an adult is about 50 ml (2 oz.), or 2 -3 swallows. Smaller amounts may cause kidney degeneration and failure. Benign urinary bladder tumors were observed in rats, no tumors were observed in mice.

ETHYLENE GLYCOL (EG): Repeated high oral exposure has caused kidney damage, neurological effects, degeneration of the liver and changes in blood chemistry and circulating blood cells in laboratory animals. Repeated overexposure has the potential to cause similar toxic effects in humans. EG causes developmental and reproductive effects at high dose levels in laboratory animals. The relevance of these findings to humans is uncertain.

Additional information is available by request.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

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Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Material -- Expected to remain in water or migrate through soil.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be readily biodegradable.

Atmospheric Oxidation:

Material -- Expected to degrade rapidly in air

BIOACCUMULATION POTENTIAL

Material -- Potential to bioaccumulate is low.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Even though this product is biodegradable, it must not be indiscriminately discarded into the environment. Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14

TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Ethylene Glycol)

Hazard Class & Division: 9

ID Number: 3082

Packing Group: III

Product RQ: 10638.3 LBS - ETHYLENE GLYCOL

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ERG Number: 171

Label(s): 9

Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Ethylene Glycol), 9, PG III, RQ

Footnote: This material is not regulated under 49 CFR when the quantity in a package is less than the Product RQ.

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport

SECTION 15

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purpose, this material is classified as hazardous in accordance with OSHA 29CFR 1910.1200.

Complies with the following national/regional chemical inventory requirements:: TSCA

EPCRA: This material contains no extremely hazardous substances.

CERCLA:

Chemical Name	CAS Number	Typical Value	Component RQ	Product RQ
ETHYLENE GLYCOL	107-21-1	40 - 50%	5000 LBS	10638.3 LBS

SARA (311/312) REPORTABLE HAZARD CATEGORIES: Immediate Health. Delayed Health.

SARA (313) TOXIC RELEASE INVENTORY:

Chemical Name	CAS Number	Typical Value
ETHYLENE GLYCOL	107-21-1	40 - 50%

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
DIETHYLENE GLYCOL	111-46-6	16, 19
ETHYLENE GLYCOL	107-21-1	1, 13, 16, 17, 18, 19

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL

6 = TSCA 5a2

11 = CA P65 REPRO

16 = MN RTK

2 = ACGIH A1

7 = TSCA 5e

12 = CA RTK

17 = NJ RTK

3 = ACGIH A2

8 = TSCA 6

13 = IL RTK

18 = PA RTK

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4 = OSHA Z

9 = TSCA 12b

14 = LA RTK

19 = RI RTK

5 = TSCA 4

10 = CA P65 CARC

15 = MI 293

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Revision Changes:

Section 04: First Aid Inhalation - Header was modified.

Section 04: First Aid Ingestion - Header was modified.

Section 06: Protective Measures was modified.

Section 09: Color was modified.

Section 09: Evaporation Rate - Header was modified.

Hazard Identification: Health Hazards was modified.

Hazard Identification: NFPA Flammability was modified.

Section 11: Inhalation Lethality Test Data was modified.

Section 09: Viscosity was modified.

Section 14: Product RQ was modified.

Hazard Identification: Health Hazards was modified.

Composition: Component table was modified.

Section 15: List Citations Table was modified.

Section 15: CERCLA Table was modified.

Section 15: National Chemical Inventory Listing - Header was modified.

Section 15: SARA (313) TOXIC RELEASE INVENTORY - Table was modified.

Section 16: NA Contains was modified.

Section 08: Exposure Limits Table was modified.

PRECAUTIONARY LABEL TEXT:

Contains: ETHYLENE GLYCOL

DANGER!

HEALTH HAZARDS

May cause harm to the unborn child. Harmful or fatal if swallowed.

Target Organs: Kidney | Reproductive system |

FIRST AID

Inhalation: Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Eye: Flush thoroughly with water. If irritation occurs, get medical assistance.

Oral: Seek immediate medical attention.

Skin: Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

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FIRE FIGHTING MEDIA

Use water fog, alcohol-resistant foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

SPILL/LEAK

Land Spill: Stop leak if you can do it without risk. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Recover by pumping or with suitable absorbent. Do not touch or walk through spilled material.

Water Spill: Stop leak if you can do it without risk. Report spills as required to appropriate authorities. Material will sink. This product emulsifies, disperses or is miscible in water. Consult an expert.

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Mobil Delvac

EXTENDED LIFE 50/50 Prediluted Coolant/Antifreeze

Product Description

Mobil Delvac Extended Life 50/50 Prediluted Coolant/Antifreeze is a ready to use phosphate-free, silicate-free, nitrite-free and borate-free ethylene glycol base coolant that is designed to provide exceptional wet sleeve liner cavitation and corrosion protection of all cooling system metals.

Mobil Delvac Extended Life 50/50 Prediluted Coolant/Antifreeze is formulated with organic corrosion inhibitors to provide total cooling system protection for 1,000,000 miles of on-road use (8 years or 20,000 hours of off-highway use). Since the organic corrosion inhibitors do not readily deplete, Mobil Delvac Extended Life 50/50 Prediluted Coolant/Antifreeze eliminates the need for Supplemental Coolant Additives (SCAs) as required when using conventional coolants.

Features and Benefits

- Long Service Life: 1,000,000 miles of on-road use (8 years or 20,000 hours of off-highway use)
- Designed for use in engines running EGR, SCR and ACERT technologies that can increase cooling system temperatures
- Eliminates the cost of SCAs, test strips and manpower required to test the coolant and add SCAs
- Can accept up to 25% mixing with conventional coolant technologies, with no detrimental effect to corrosion protection or reducing the extended life properties
- Fully compatible with other quality Organic Acid (OAT) and Nitrited Organic Acid (NOAT) heavy-duty extended life coolants
- Non-abrasive formula can improve water pump seal life
- Optimal hard water compatibility and reduced hard water scale
- Provides outstanding long-term elastomer compatibility

Applications

Mobil Delvac Extended Life 50/50 Prediluted Coolant/Antifreeze is recommended by ExxonMobil for use in:

- All types of heavy-duty diesel, gasoline and natural gas engines.
- Stationary engine applications regardless of fuel type being used.
- Marine cooling systems where freeze protection is needed.
- Mixed fleets where both light-duty and heavy-duty trucks are present.

Specifications

Mobil Delvac™ Extended Life Coolant/Antifreeze is recommended by ExxonMobil for use in applications requiring:

- | | | |
|------------------------|---------------------------|---|
| • ASTM D 6210 | • Detroit 93K217 | • |
| Mercedes Benz DBL 7700 | | |
| • ASTM D 7583 | • John Deere H24A2, H24C2 | • |
| MTU 5048 | | |

- Behr Radiator

Navistar CEMS-B1-Type IIIa

- MAN 324 Type SNF

•

- CAT EC-1

TMC RP 329

- Mercedes Benz 326.3

•

- Cummins CES 14603

Meets the performance requirements of:

- Volvo/Mack
- Paccar
- Phosphate-free requirements of European original equipment manufacturers (OEMs)
- Silicate-free requirements of Japanese OEMs

Chemical Properties

Property	ASTM Test Method	Typical Values For Mobil Delvac 50/50 Prediluted Coolant/Antifreeze
Specific Gravity (60/60°F)	D1122	1.070 – 1.090
Freezing Point, 50 Vol. %, °F	D3321 or D1177	-34
Boiling Point, 50 Vol. %, °F	D1120	265
PH, 50 Vol. %	D1287	8.0 – 9.0
Reserve Alkalinity	D1121	3.8 – 5.0
Foam Test	D1881	150 ml. / 5 sec., Max
Color	Visual	Red

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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12-2014

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1-800-ASK MOBIL (275-6624)

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