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SAFETY DATA SHEET

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE

COMPANY / UNDERTAKING

As of the revision date above, this SDS meets the regulations in Ireland and Northern Ireland.

1.1. PRODUCT IDENTIFIER

Product Name: SOMENTOR AL 70

Product Description: Base Oil and Additives

Product Code: 201570205530, 7031270-60

UFI: 9R51-R0XW-000K-XKF6

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Intended Use: Rolling oil

Uses advised against: This product is not recommended for any industrial, professional or consumer use

other than the Identified Uses above.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier: ExxonMobil Petroleum & Chemical BVBA

POLDERDIJKWEG B-2030 Antwerpen

Belgium

 Product Technical Information:
 (IE) 1800 882 024 / (UK) 0800 028 2851

 Supplier General Contact:
 (IE) 1800 882 024 / (UK) 0800 028 2851

SDS Internet Address: www.msds.exxonmobil.com
Supplier / Registrant: (BE) +32 3 790 3111

1.4. EMERGENCY TELEPHONE NUMBER

24 Hour Emergency Telephone: (IE) +353-1-901-4670 (CHEMTREC) / (UK) +44-870-820-

04-18 (CHEMTREC)

National Poison Control Centre: (IE) (+353)1 809 2166 (8am - 10pm every day) / (UK) 111

SECTION 2 HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008

Aspiration toxicant: Category 1., H304: May be fatal if swallowed and enters airways.

Acute inhalation toxicant: Category 4., H332: Harmful if inhaled.

Chronic aquatic toxicant: Category 3., H412: Harmful to aquatic life with long lasting effects.

2.2. LABEL ELEMENTS

Label elements according to Regulation (EC) No 1272/2008



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Pictograms:





Signal Word: Danger

Hazard Statements:

Health:

H304: May be fatal if swallowed and enters airways.

H332: Harmful if inhaled.

Environment:

H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

P261: Avoid breathing mist / vapours.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

Response

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312: Call a POISON CENTRE or doctor/physician if you feel unwell.

P331: Do NOT induce vomiting.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents and container in accordance with local regulations.

Contains: 1-DECENE, DIMERS, HYDROGENATED; Distillates (petroleum), hydrotreated heavy paraffinic; Distillates (petroleum), solvent-dewaxed heavy paraffinic; Hydrogenated dimerization products of 1-decene and 1-dodecene; Reaction products of 1-decene, 1-dodecene, and 1-octene hydrogenated

2.3. OTHER HAZARDS

Physical / Chemical Hazards:

No significant hazards.

Health Hazards:

This product may be used in certain applications where misting can occur. Excessive exposure to liquids and mists may cause skin and eye irritation. In addition, excessive exposure to mists may cause respiratory irritation and damage and aggravate pre-existing emphysema or asthma. Airborne low-viscosity branched



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alkanes can affect lungs.

Environmental Hazards:

No additional hazards. Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.

Endocrine Disrupting Properties:

Contains no substance(s) known to have endocrine disrupting properties.

SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

3.1. SUBSTANCES Not Applicable. This material is regulated as a mixture.

3.2. MIXTURES

This material is defined as a mixture.

Reportable hazardous substance(s) complying with the classification criteria and/or with an exposure limit (OEL)

Name	CAS#	EC#	Registration#	Concentration *	GHS/CLP classification	Specific Conc. Limits, M- factors and ATEs
Hydrogenated dimerization products of 1- decene and 1- dodecene	151006-58-5	604-766-2	01-2119527647-31	0 - < 70%	Acute Tox. 4 H332, Asp. Tox. 1 H304	-
1-DECENE, DIMERS, HYDROGENATE D		500-228-5	01-2119537268-33	0 - < 70%	Acute Tox. 4 H332, Asp. Tox. 1 H304	-
2,6-DI-TERT- BUTYL-P- CRESOL	128-37-0	204-881-4	01-2119565113-46	0.1 - < 1%	Aquatic Acute 1 H400 (M factor 1), Aquatic Chronic 1 H410 (M factor 1)	-
C12-C18 ALCOHOLS	67762-25-8	267-006-5	NE	1 - < 5%	Aquatic Acute 1 H400 (M factor 1), Aquatic Chronic 2 H411, Eye Irrit. 2 H319	-
PHENOL, ISOBUTYLENAT ED, PHOSPHATE (3:1)[TRIPHENY L PHOSPHATE >= 2.5-<25%]	-	700-990-0	01-2119519251-50	1 - < 5%	[Aquatic Acute 2 H401], Aquatic Chronic 2 H411	-
Reaction products of 1- decene, 1- dodecene, and 1- octene hydrogenated	68649-11-6	700-308-1	01-2119411393-49	0 - < 70%	Acute Tox. 4 H332, Asp. Tox. 1 H304	-
Distillates	64742-54-7	265-157-1	01-2119484627-25	10 - < 20%	Asp. Tox. 1 H304	-



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(petroleum), hydrotreated heavy paraffinic						
Distillates (petroleum), solvent-dewaxed	64742-65-0	265-169-7	01-2119471299-27	10 - < 20%	Asp. Tox. 1 H304	-

Note - any classification in brackets is a GHS building block that was not adopted by the EU in the CLP regulation (No 1272/2008) and therefore is not applicable in the EU or in non-EU countries which have implemented the CLP regulation and is shown for informational purposes only.

Note: Any entry in the EC# column that begins with the number "9" is a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance. See Section 15 for additional CAS number information for the substance.

Note: See SDS Section 16 for full text of hazard statements.

SECTION 4

FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

SKIN CONTACT

Wash contact areas with soap and water.

EYE CONTACT

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

INGESTION

Seek immediate medical attention. Do not induce vomiting.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Headache, dizziness, drowsiness, nausea and other CNS effects.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5

FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

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

Unsuitable Extinguishing Media: Straight streams of water



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5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

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

5.3. ADVICE FOR FIRE FIGHTERS

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Pressurised mists may form a flammable mixture. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

FLAMMABILITY PROPERTIES

Flash Point [Method]: >140°C (284°F) [ASTM D-92]

Upper/Lower Flammable Limits (Approximate volume % in air): UEL: 7.0 LEL: 0.6 [Estimated]

Autoignition Temperature: No data available

SECTION 6

ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

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.

6.2. ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

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



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consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4. REFERENCES TO OTHER SECTIONS

See Sections 8 and 13.

SECTION 7

HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Avoid breathing mists or vapour. Small metal particles from machining may cause abrasion of the skin and may predispose to dermatitis. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers.

7.3. SPECIFIC END USES

Section 1 informs about identified end-uses. No industrial or sector specific guidance available.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

EXPOSURE LIMIT VALUES

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

Substance Name	Form	Limit/Sta	ndard	Note	Source
1-DECENE, DIMERS, HYDROGENATED	Aerosols (thoracic fraction)	TWA	1 mg/m3		ExxonMobil
2,6-DI-TERT-BUTYL-P-CRESOL		TWA	2 mg/m3		Ireland OELs
2,6-DI-TERT-BUTYL-P-CRESOL		TWA	10 mg/m3		UK EH40
2,6-DI-TERT-BUTYL-P-CRESOL	Inhalable fraction and vapour	TWA	2 mg/m3		ACGIH
Distillates (petroleum), hydrotreated heavy paraffinic	Inhalable fraction.	TWA	5 mg/m3		ACGIH



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Distillates (petroleum), solvent-TWA 5 mg/m3 **ACGIH** dewaxed heavy paraffinic Inhalable fraction. Hydrogenated dimerization products TWA 1 mg/m3 ExxonMobil of 1-decene and 1-dodecene Aerosols (thoracic fraction) Reaction products of 1-decene, 1-TWA 1 mg/m3 ExxonMobil dodecene, and 1-octene Aerosols hydrogenated (thoracic fraction)

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following is recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction).

Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s):

IE Health and Safety Executive (HSE)
UK Health and Safety Executive (HSE)

DERIVED NO EFFECT LEVEL (DNEL)/DERIVED MINIMAL EFFECT LEVEL (DMEL)

Worker

Substance Name	Dermal	Inhalation
1-DECENE, DIMERS,	NA	NA
HYDROGENATED		
Distillates (petroleum), hydrotreated	NA	5.4 mg/m3 DNEL, Chronic
heavy paraffinic		Exposure, Local Effects
Distillates (petroleum), solvent-	NA	5.4 mg/m3 DNEL, Chronic
dewaxed heavy paraffinic		Exposure, Local Effects
PHENOL, ISOBUTYLENATED,	10.75 mg/kg bw/day DNEL, Chronic Exposure,	7.58 mg/m3 DNEL, Chronic
PHOSPHATE (3:1)[TRIPHENYL	Systemic Effects	Exposure, Systemic Effects
PHOSPHATE >=2.5-<25%]		
Reaction products of 1-decene, 1-	NA	3.9 mg/m3 DNEL, Acute Exposure,
dodecene, and 1-octene		Local Effects
hydrogenated		
Hydrogenated dimerization products	NA	NA
of 1-decene and 1-dodecene		

Consumer

Substance Name	Dermal	Inhalation	Oral
1-DECENE, DIMERS,	NA	NA	NA
HYDROGENATED			
Distillates (petroleum), hydrotreated	NA	1.2 mg/m3 DNEL, Chronic	NA
heavy paraffinic		Exposure, Local Effects	
Distillates (petroleum), solvent-	NA	1.2 mg/m3 DNEL, Chronic	NA
dewaxed heavy paraffinic		Exposure, Local Effects	
PHENOL, ISOBUTYLENATED,	5.375 mg/kg bw/day DNEL,	1.87 mg/m3 DNEL,	5.375 mg/kg bw/day
PHOSPHATE (3:1)[TRIPHENYL	Chronic Exposure, Systemic	Chronic Exposure,	DNEL, Chronic Exposure,

IE - Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)

UK - EH40 Workplace Exposure Limits. Exposure limits for use with Control of Substances Hazardous to Health Regulations 2002 (as amended)



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PHOSPHATE >=2.5-<25%]	Effects	Systemic Effects	Systemic Effects
Reaction products of 1-decene, 1-dodecene, and 1-octene hydrogenated	NA	3.9 mg/m3 DNEL, Acute Exposure, Local Effects	NA
Hydrogenated dimerization products of 1-decene and 1-dodecene	NA	NA	NA

Note: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance Name	Aqua (fresh water)	Aqua (marine water)	Aqua (intermittent release)	Sewage treatment plant	Sediment	Soil	Oral (secondary poisoning)
1-DECENE, DIMERS, HYDROGENATED	NA	NA	NA	NA	NA	NA	NA
Distillates (petroleum), hydrotreated heavy paraffinic	NA	NA	NA	NA	NA	NA	9.33 mg / kg (food)
Distillates (petroleum), solvent- dewaxed heavy paraffinic	NA	NA	NA	NA	NA	NA	9.33 mg / kg (food)
PHENOL, ISOBUTYLENATED, PHOSPHATE (3:1)[TRIPHENYL PHOSPHATE >=2.5- <25%]	0.000798 mg/l	0.00008 mg/l	NA	NA	0.96 mg/kg (dry wt)	0.252 mg/kg	NA
Reaction products of 1-decene, 1- dodecene, and 1- octene hydrogenated	NA	NA	NA	NA	NA	NA	NA
Hydrogenated dimerization products of 1-decene and 1-dodecene	NA	NA	NA	NA	NA	NA	NA

8.2. EXPOSURE CONTROLS

ENGINEERING CONTROLS



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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:

Half-face filter respirator Particulate, European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

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/vapour 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:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended. Chemical type goggles should be worn during misting operations.

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:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

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

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only



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and may not fully represent product specifications. Contact the Supplier for additional information.

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Colour: Brown

Odour: Characteristic

Odour Threshold: No data available

Melting Point / Freezing Point: Not technically feasible / No data available **Initial Boiling Point / and Boiling Range:** > 316°C (600°F) [Estimated]

Flammability (Solid, Gas): Not technically feasible

Lower and Upper explosion limit: UEL: 7.0 LEL: 0.6 [Estimated]

Flash Point [Method]: >140°C (284°F) [ASTM D-92]

Autoignition Temperature: No data available **Decomposition Temperature:** No data available

pH: Not technically feasible

Kinematic Viscosity: 7.4 cSt (7.4 mm2/sec) at 40°C [ASTM D 445]

Solubility: Negligible

Partition coefficient (n-Octanol/Water Partition Coefficient): > 3.5 [Estimated]

Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]

Relative Density (at 15 °C): 0.85 [ASTM D4052]

Relative Vapour Density (Air = 1): > 2 at 101 kPa [Estimated] Evaporation Rate (n-butyl acetate = 1): No data available

Explosive Properties: None Oxidizing Properties: None Particle Characteristics

Median particle size: Not Applicable

9.2. OTHER INFORMATION

Pour Point: < -6°C (21°F) [ASTM D97]

DMSO Extract (mineral oil only), IP-346: 3 %wf

9.2.1. INFORMATION WITH REGARD TO PHYSICAL HAZARD CLASSES

No data available

9.2.2. OTHER SAFETY CHARACTERISTICS

No data available

SECTION 10 STABILITY AND REACTIVITY

10.1. REACTIVITY: See sub-sections below.

10.2. CHEMICAL STABILITY: Material is stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

10.4. CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

10.5. INCOMPATIBLE MATERIALS: Strong oxidisers



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

SECTION 11

TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Moderately toxic. Based on assessment of the components.
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapours, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitisation	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico- chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

11.2. INFORMATION ON OTHER HAZARDS

11.2.1 ENDOCRINE DISRUPTING PROPERTIES

Contains no substance(s) known to have endocrine disrupting properties that affect human health.

11.2.2 OTHER INFORMATION

For the product itself:



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Oil Mist (highly refined oils): Animals exposed to high concentrations of mist developed oil retention, inflammation, and oil granulomas in the respiratory tract. Oils exposed to high temperatures, cracking conditions, or mixing with tramp / used oils may introduce polycyclic aromatic compounds or microbial contaminants that could result in cancer or severe respiratory hazards.

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals. Low-viscosity branched alkanes: Acute exposures to high aerosol levels are harmful to lungs.

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

12.1. TOXICITY

Material -- Expected to be harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

12.2. PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

12.3. BIOACCUMULATIVE POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

12.4. MOBILITY IN SOIL

Base oil component -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

12.5. PERSISTENCE, BIOACCUMULATION AND TOXICITY FOR SUBSTANCE(S)

Material does not meet the Reach Annex XIII criteria for PBT or vPvB.

12.6. ENDOCRINE DISRUPTING PROPERTIES

Contains no substance(s) known to have endocrine disrupting properties that affect the environment.

12.7. OTHER ADVERSE EFFECTS

No adverse effects are expected.

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.

13.1. WASTE TREATMENT METHODS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised



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incineration at very high temperatures to prevent formation of undesirable combustion products.

European Waste Code: 12 01 07*

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to The Hazardous Waste Regulations (HWR), and subject to the provisions of those Regulations.

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 (ADR/RID): 14.1-14.6 Not Regulated for Land Transport

INLAND WATERWAYS (ADN): 14.1-14.6 Not Regulated for Inland Waterways Transport

SEA (IMDG): 14.1-14.6 Not Regulated for Sea Transport according to IMDG-Code

SEA (MARPOL 73/78 Convention - Annex II):

14.7. Maritime transport in bulk according to IMO instruments

Not classified according to Annex II

AIR (IATA): 14.1-14.6 Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories : ENCS, TSCA Special Cases:

Inventory	Status
NDSL	Restrictions Apply



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15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Applicable EU Directives and Regulations:

1907/2006 [... on the Registration, Evaluation, Authorisation and Restriction of Chemicals ... and amendments thereto]

1272/2008 [on classification, labelling and packaging of substances and mixtures.. and amendments thereto]

REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII):

The following entries of Annex XVII may be considered for this product: None

15.2. CHEMICAL SAFETY ASSESSMENT

REACH Information: A Chemical Safety Assessment has been carried out for one or more substances present in the material.

SECTION 16 OTHER INFORMATION

REFERENCES: Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate.

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

Acronym Full text
N/A Not applicable
N/D Not determined
NE Not established

VOC Volatile Organic Compound

AIIC Australian Inventory of Industrial Chemicals

AIHA WEEL American Industrial Hygiene Association Workplace Environmental Exposure Limits

ASTM ASTM International, originally known as the American Society for Testing and Materials (ASTM)

DSL Domestic Substance List (Canada)

EINECS European Inventory of Existing Commercial Substances

ELINCS European List of Notified Chemical Substances

ENCS Existing and new Chemical Substances (Japanese inventory)

IECSC Inventory of Existing Chemical Substances in China

KECI Korean Existing Chemicals Inventory
NDSL Non-Domestic Substances List (Canada)
NZIoC New Zealand Inventory of Chemicals

PICCS Philippine Inventory of Chemicals and Chemical Substances

TLV Threshold Limit Value (American Conference of Governmental Industrial Hygienists)

TSCA Toxic Substances Control Act (U.S. inventory)

UVCB Substances of Unknown or Variable composition, Complex reaction products or Biological materials

LC Lethal Concentration

LD Lethal Dose LL Lethal Loading



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EC Effective Concentration
EL Effective Loading

NOEC No Observable Effect Concentration NOELR No Observable Effect Loading Rate

Classification according to Regulation (EC) No 1272/2008

Classification according to Regulation (EC) No 1272/2008	Classification procedure
Aquatic Chronic 3; H412	Calculation
Asp. Tox. 1; H304	Based on test data

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

Asp. Tox. 1 H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1 Eye Irrit. 2 H319: Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2

Acute Tox. 4 H332: Harmful if inhaled; Acute Tox Inh, Cat 4

Aquatic Acute 1 H400: Very toxic to aquatic life; Acute Env Tox, Cat 1 [Aquatic Acute 2 H401]: Toxic to aquatic life; Acute Env Tox, Cat 2

Aquatic Chronic 1 H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1 Aquatic Chronic 2 H411: Toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 2

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Composition: Component Table for REACH information was modified.

dnel table - consumer information was modified. dnel table - worker information was modified.

PNEC table information was modified.

Section 02: GHS (REACH Registration Name) Contains for LABEL GHS codes information was modified.

Section 08: Exposure Limits Table information was modified.

Section 09 median particle size information was added. Section 09: Freezing Point °C(°F) information was deleted.

Section 09: Melting Point C(F) information was deleted.

Section 19. Meiting Foint C(F) information was deleted.

Section 11 EU Annex II Endocrine Disruptor Data information was added.

Section 12 EU Annex II Endocrine Disruptor Data information was added.

Section 13: European Waste Code Hazardous Note information was modified.

Section 2 EU Annex II Endocrine Disruptor Data information was added.

Section 9 melting and freezing points information was added.

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MHC: 0, 0B, 2, 0, 0, 1 PPEC: C

DGN: 2030051XIE (1010412)

ANNEX

Annex not required for this material.