



Safety Data Sheet

DRYDENE DRF A-MAIN SYNTHETIC SAE 15W-50

SECTION 1: Identification

1.1 Product identifier

Product name DRYDENE DRF A-MAIN SYNTHETIC SAE 15W-50
Brand DRYDENE

1.2 Other means of identification D1530204, D1530212

1.3 Recommended use of the chemical and restrictions on use

For use in automotive internal combustion engines.

This product must be used only for its intended application in automotive internal combustion engines and at its intended treat rate.

This information relates to the specific material described within this Safety Data Sheet and may not be valid if this material is used in combination with any other material or in any process or in any application other than the intended application. It is the user's responsibility to satisfy himself as to the suitability and completeness of this information for his own particular use.

1.4 Supplier's details

Name Drydene Performance Products, Inc.
Address 841 Nina Way, Unit 1
Warminster, PA 18974

Telephone 877-379-3363
email sds@drydene.com

1.5 Emergency phone number(s) CHEMTREC (USA) 1-800-424-9300

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SECTION 2: Hazard identification

General hazard statement

"Consumer Products", as defined by the US Consumer Product Safety Act and which are used as intended (typical consumer duration and frequency), are exempt from the OSHA Hazard Communication Standard (29 CFR 1910.1200). This SDS is being provided as a courtesy to help assist in the safe handling and proper use of the product.

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Aspiration hazard, Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H304

May be fatal if swallowed and enters airways

Precautionary statement(s)

P102

Keep out of reach of children.

P301+P310

IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P331

Do NOT induce vomiting.

P405

Store locked up.

P501

Dispose of contents/container to ...

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Distillates (petroleum), hydrotreated heavy paraffinic, if they contain > 3 % w/w DMSO extract

Concentration 1 - 40 % (weight)

EC no. 265-157-1

CAS no. 64742-54-7

2. Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs

Concentration 0.5 - 5 % (weight)

CAS no. 84605-20-9

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3. Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoocetyl) esters, zinc salts

Concentration 0.5 - 5 % (weight)
CAS no. 113706-15-3

4. Poly(1-decene)

Concentration 1 - 15 % (weight)
EC no. 500-183-1
CAS no. 68037-01-4

5. 1-Dodecene, homopolymer, hydrogenated

Concentration 1 - 60 % (weight)
CAS no. 151006-63-2

6. Synthetic polyol ester

Concentration 0.1 - 5 % (weight)

7. Molybdenum, N,N-bis(C11-14-branched and linear alkyl)carbomodithioate oxo thioxo complexes

Concentration 0.01 - 1 % (weight)
CAS no. 906665-74-5

Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Keep out of reach of children. Seek medical attention if symptoms develop related to contact or exposure as outlined in this section.
If inhaled	Inhalation of oil mists or vapors generated at elevated temperatures may cause respiratory irritation. If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek immediate medical attention. In case of inhalation of decomposition products in a fire, the exposed person may need to be kept under medical surveillance. Physician note: Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate this material should be followed for the development of long-term sequelae.
In case of skin contact	Cleanse affected areas by washing thoroughly with mild soap and water or with waterless hand cleaner. Remove contaminated clothing and shoes and wash before reuse. If irritation or redness develops and persists, seek medical attention. Repeated or prolonged contact may dry skin and cause irritation.
In case of eye contact	In case of contact, flush eyes immediately with clean water. Check for and remove contact lenses. If irritation or redness develops, seek medical attention.

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If swallowed
Accidental ingestion can result in minor irritation of the digestive tract, nausea and diarrhea. If swallowed and symptoms develop, seek medical attention. Do not induce vomiting unless directed by medical personnel.

4.2 Most important symptoms/effects, acute and delayed

Inhalation of oil mists or vapors generated at elevated temperatures may cause respiratory irritation. Accidental ingestion can result in minor irritation of the digestive tract, nausea and diarrhea. Repeated or prolonged contact may dry skin and cause irritation.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Seek medical attention if symptoms develop related to contact or exposure as outlined in this section. In case of inhalation of decomposition products in a fire, the exposed person may need to be kept under medical surveillance.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

In case of fire, use dry chemical or carbon dioxide or foam or water spray. Use caution when applying carbon dioxide in confined spaces as carbon dioxide can displace oxygen. Do not breathe fumes.

5.2 Specific hazards arising from the chemical

This material may burn but will not ignite readily. If container is not properly cooled, it can rupture in the heat of a fire. Hazardous combustion products may include smoke, carbon oxides (CO, CO₂), nitrogen oxides, sulfur oxides.

5.3 Special protective actions for fire-fighters

For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Further information

NFPA 704 Flammability: 1

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

This material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release. Stay upwind and away from spill/release. Avoid direct contact with material. Put on appropriate personnel protective equipment. Floors may be slippery, do not walk through spilled material. Keep unprotected and unnecessary personnel away from spill area.

For large spills, notify persons down wind of the spill/release. Isolate the immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff. Avoid contact with soil, drains, sewers, waterways. Stop and contain spill/release if it can be done safely. Use water sparingly to minimize environmental contamination and reduce disposal requirements. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the relevant authorities or the National Response Center (phone 800-424-8802).

6.3 Methods and materials for containment and cleaning up

Stop and contain spill/release if it can be done safely. If necessary, dike ahead of spill. Prevent entry into drains, sewers, waterways. Immediate cleanup of spill/release is recommended. Absorb spill with inert material such as

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sand or vermiculite, and place in a suitable container for disposal. Dispose according to local regulations or by a licensed waste disposal contractor. If spilled on water, remove with appropriate methods (skimming, booms, absorbents) and remediate or dispose in accordance with local regulations and authorities. In case of soil contamination, remove contaminated soil for remediation or disposal in accordance with local regulations and authorities.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep away from flames and hot surfaces. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment. Spills will produce slippery surfaces. Do not wear contaminated clothing or shoes. Do not enter confined spaces such as tanks or pits without following proper and safe entry procedures (see relevant OSHA, ASTM, CFR regulations). Do not eat, drink, or smoke when handling this material, or in areas where this material is handled, processed, or stored.

This material may 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. Use proper bonding and/or grounding procedures. However, bonding and grounding may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include: API 2003, NFPA 77, CENELEC CLC/TR 50404.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container or approved replacement container. Keep containers tightly closed and properly labelled. Do not store in unlabeled containers. Store material away from direct sunlight in a cool, dry, well ventilated area away from heat and all sources of ignition. Keep away from any incompatible material (see Section 10). Keep away from food and drink. Protect containers against physical damage.

Empty containers, drums, storage tanks retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Before working on or in tanks which contain or have contained this material, refer to the relevant OSHA regulations pertaining to cleaning, repairing, welding, or other contemplated operations. Empty drums should be completely drained, properly bunged, and promptly disposed of or reconditioned by a regulated drum remediator in accordance with appropriate regulations. All containers should be disposed of in an environmentally safe manner and in accordance with appropriate regulations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Distillates (petroleum), hydrotreated heavy paraffinic, if they contain > 3 % w/w DMSO extract (CAS: 64742-54-7 EC: 265-157-1)

TWA (Inhalation): 5

STEL (Inhalation): 10

2. Benzene, diethenyl-, polymer with 2-methyl-1,3-butadiene, hydrogenated (CAS: 127883-08-3)

TLV® (Inhalation): 5

STEL (Inhalation): 10

3. Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isoctyl) esters, zinc salts (CAS: 113706-15-3)

TLV® (Inhalation): 5

STEL (Inhalation): 10

4. Amines, polyethylenepoly-, reaction products with succinic anhydride polyisobutenyl derivs (CAS: 84605-20-9)

TLV® (Inhalation): 5

STEL (Inhalation): 10

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8.2 Appropriate engineering controls

If current ventilation equipment or practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Wear safety glasses with side shields that meet or exceed ANSI Z.87.1. Face shield is appropriate if the user may be exposed to uncontrolled release of this material into the atmosphere from equipment or containers.

Skin protection

The use of gloves, shoes, and other skin protective gear that are impervious to this material is advised to prevent skin contact. Users should consult with manufacturers to confirm the protective capability and breakthrough resistance of their products. Nitrile is a suggested protective material for use with this material.

Body protection

Use personal protective equipment for the body (such as overalls, protective suits, aprons, boots, gloves, etc.) as determined by the task to be performed and the risk of skin contact. Disposable clothing and shoes should be disposed of properly and not be reused. Clothing and shoes that are soaked with this material should be removed and either disposed of or properly laundered if they will be worn again. Routinely wash work clothing and protective equipment to remove contaminants.

Respiratory protection

Where there is potential for airborne exposure above the exposure limit, a NIOSH certified air purifying respirator or self-contained breathing apparatus should be used. User must consult with the manufacturer to determine the appropriate respirator and filter suitable for the working conditions. This may involve a full assessment, with the manufacturer and relevant health and safety experts, of the working environment and user duties, the atmospheric conditions and material airborne concentration conditions in the work zone, oxygen levels, or any other conditions that may be immediately dangerous to life and health.

Thermal hazards

Use caution when this material is hot. Contact with hot oil can cause serious burns to the skin and eyes. Use appropriate personal protective equipment to prevent hot oil from contacting skin or eyes. In case of burns, seek immediate medical attention.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Liquid, amber color.
Odor	Hydrocarbon-like
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	200C COC
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.

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Vapor pressure	No data available.
Vapor density	No data available.
Relative density	< 1 g/cm ³ at 20C
Solubility(ies)	Insoluble in water.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	16.3 - 21.9 cSt
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under normal ambient and anticipated conditions of use. Refer to Conditions to Avoid and Incompatible Materials for additional information.

10.2 Chemical stability

Stable under normal ambient and anticipated conditions of use. Refer to Conditions to Avoid and Incompatible Materials for additional information.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions or hazardous polymerization will not occur.

10.4 Conditions to avoid

Avoid all possible sources of ignition (spark or flame).

10.5 Incompatible materials

Reactive or incompatible with strong oxidizing agents or strong reducing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products should not be produced under normal ambient and anticipated conditions of use.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Inhalation. Petroleum distillates, hydrotreated heavy paraffinic : Aspiration Hazard: Category 1

Dermal. No known significant effects or critical hazards.

Oral. No known significant effects or critical hazards.

Skin corrosion/irritation

Not expected to be irritating. Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation

No known significant effects or critical hazards.

May cause eye irritation.

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Respiratory or skin sensitization

Respiratory. Exposure to decomposition products may cause a health hazard.
Skin. Not expected to be a skin sensitizer.

Germ cell mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

No known significant effects or critical hazards.

Summary of evaluation of the CMR properties

No known significant effects or critical hazards.

STOT-single exposure

No known significant effects or critical hazards.

STOT-repeated exposure

No known significant effects or critical hazards.

Aspiration hazard

Aspiration Hazard: Category 1

Acute aspirations of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate this material should be followed for the development of long-term sequelae.

Additional information

Used engine oil may contain hazardous combustion products resulting from the operation of internal combustion engines. Hazardous combustion products in used engine oil have the potential to cause skin cancer. Frequent or prolonged contact with used engine oil must be avoided. Wear proper protective gloves and skin protection. Wash hands and skin and clothing with soap and water where used oil has come in contact. Maintain a high level of personal hygiene and workplace hygiene.

SECTION 12: Ecological information

Toxicity

No data available on product

Persistence and degradability

Anticipated to be biodegradable.

Bioaccumulative potential

Not anticipated to bioaccumulate through food chains in the environment.

Mobility in soil

In soil and sediment, hydrocarbon components will show low mobility with adsorption to sediments being the predominant physical process. The main fate process is expected to be slow biodegradation of the hydrocarbon constituents in soil and sediment.

Results of PBT and vPvB assessment

Not anticipated to be PBT or vPvB.

Other adverse effects

No known significant effects or critical hazards.

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SECTION 13: Disposal considerations

Disposal of the product

Recycle unused or used oil in accordance with applicable local, state, or federal regulations.

Disposal of contaminated packaging

Dispose or recycle empty containers in accordance with applicable local, state, or federal regulations. Empty containers, drums, storage tanks retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. Before working on or in tanks which contain or have contained this material, refer to the relevant OSHA regulations pertaining to cleaning, repairing, welding, or other contemplated operations. Empty drums should be completely drained, properly bunged, and promptly disposed of or reconditioned by a regulated drum remediator in accordance with appropriate regulations. All containers should be disposed of in an environmentally safe manner and in accordance with appropriate regulations.

Other disposal recommendations

Use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

SECTION 14: Transport information

DOT (US)

UN Number: Not regulated
Class: Not applicable
Packing Group: Not applicable
Proper Shipping Name: Petroleum Lubricating Oil
Reportable quantity (RQ): Not applicable
Marine pollutant:
Poison inhalation hazard:

IMDG

UN Number: Not regulated
Class: Not applicable
Packing Group: Not applicable
EMS Number: Not applicable
Proper Shipping Name: Petroleum Lubricating Oil

IATA

UN Number: Not regulated
Class: Not applicable
Packing Group: Not applicable
Proper Shipping Name: Petroleum Lubricating Oil

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA 311/312 Hazards

Acute health hazard (acute aspirations of large amounts of oil laden material)

SARA 313 Components

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Phosphorodithioic acid, mixed O,O-bis(sec-Bu and isooctyl) esters, zinc salts. This chemical comprises less than 5% of this material.

CERCLA

This product does not contain any hazardous substances listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 40 CFR Part 302, Table 302.4

California Prop. 65 Components

WARNING, This product can expose you to chemicals including Benzene, Trace Metals, Ethyl Benzene, Naphthalene, Cumene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Impurities (less than 0.1%)

Toxic Substances Control Act (TSCA) Inventory

All components of this material are on the US TSCA Inventory

Pennsylvania Right To Know Components

Solvent naphtha (less than 0.1% of this material). Ethyl Benzene, Xylene, Naphthalene, Cumene (Impurities, less than 0.1% of this material). Highly refined mineral oil. Polyolefin amide alkyleneamine. 1-Decene, homopolymer, hydrogenated CAS 68037-01-4

New Jersey Right To Know Components

Ethyl Benzene, Xylene, Naphthalene, Cumene (Impurities, less than 0.1% of this material). Highly refined mineral oil. Polyolefin amide alkyleneamine. 1-Decene, homopolymer, hydrogenated CAS 68037-01-4

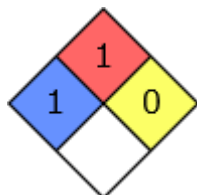
Massachusetts Right To Know Components

Ethyl Benzene, Xylene, Naphthalene, Cumene (Impurities, less than 0.1% of this material). Highly refined mineral oil.

HMIS Rating

DRYDENE DRF A-MAIN SYNTHETIC SAE 15W-50	
HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B

NFPA Rating



SECTION 16: Other information

The full text of the phrases appearing in section 3 is:

P301: Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.

P501: In accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.