SAFETY DATA SHEET

1. Identification

Product identifier FS HYDRAULIC MV ISO68

Other means of identification None.

Recommended use Hydraulic oil
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor

information Manufacturer

Company name GROWMARK INC.

Address 2200 South Avenue
Council Bluffs, IA 51503

United States

Telephone General Assistance 800-798-6457

E-mail Not available.

Emergency phone number CHEMTREC 800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7	60 - < 70
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT		64742-71-8	20 - < 30
Lubricating Oils (petroleum), Hydrotreated Spent		64742-58-1	12.75
VISCOSITY MODIFIER		Mixture	1.25
ALKYL PHENOL		Proprietary	< 0.2
Other components below reportable I	evels		1 - < 3

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur. Direct contact with eyes may cause temporary irritation. Most important

symptoms/effects, acute and

delayed

Indication of immediate

medical attention and special treatment needed

Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions

to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media Specific hazards arising from

During fire, gases hazardous to health may be formed.

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

the chemical Special protective equipment

and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the

Environmental precautions

SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Conditions for safe storage, including any incompatibilities Avoid prolonged exposure. Observe good industrial hygiene practices.

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	Form
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT (CAS 64742-71-8)	PEL	5 mg/m3	Mist.

SDS US

US.	ACGIH	Threshold	Limit	Values
-----	-------	-----------	-------	--------

US. ACGIH Threshold Limit Val Components	ues Type	Value	Form
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC (CAS 64742-54-7)	TWA	5 mg/m3	Inhalable fraction.
Lubricating Oils (petroleum), Hydrotreated Spent (CAS 64742-58-1)	TWA	5 mg/m3	Inhalable fraction.
PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT (CAS 64742-71-8)	TWA	5 mg/m3	Inhalable fraction.
US. NIOSH: Pocket Guide to Ch	nemical Hazards		
Components	Туре	Value	Form
PARAFFIN OILS (PETROLEUM),	STEL	10 mg/m3	Mist.

Biological limit values

CATALYTIC DEWAXED LIGHT (CAS 64742-71-8)

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

5 mg/m3

Mist.

Individual protection measures, such as personal protective equipment

If contact is likely, safety glasses with side shields are recommended. Eye/face protection

TWA

Skin protection

For prolonged or repeated skin contact use suitable protective gloves. Hand protection

Wear suitable protective clothing. Other

In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

General hygiene considerations

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.

9. Physical and chemical properties

Appearance

Liquid. Physical state Liquid. **Form** Color Not available. Odor Not available. **Odor threshold** Not available. Not available. Ha Melting point/freezing point Not available.

Initial boiling point and boiling 680 °F (360 °C) estimated

range

Flash point 275.0 °F (135.0 °C) estimated

Evaporation rate Not available. Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits Flammability limit - lower Not available.

(%)

Flammability limit - upper

Not available.

(%)

Explosive limit - lower (%) Not available.

4248 Version #: 02 Revision date: 12-17-2015 Issue date: 04-13-2015

Explosive limit - upper (%) Not available.

Vapor pressureNot available.Vapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 500 °F (260 °C) estimated

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Density 7.34 lbs/gal estimated

Explosive properties Not explosive.

Flammability class Combustible IIIB estimated

Oxidizing properties Not oxidizing.

Percent volatile 0.00002 % estimated

Specific gravity 0.88 estimated

VOC (Weight %) 0.00002 % estimated

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.

Skin contact

No adverse effects due to skin contact are expected.

Eye contact

Direct contact with eyes may cause temporary irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not available.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation. **Serious eye damage/eye** Direct contact with eyes may cause temporary irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not available.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

cinale expecure

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

Chronic effects

Prolonged inhalation may be harmful.

Further information

This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

Bioaccumulative potential

No data is available on the degradability of this product.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established.

Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard

Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard -

No Delayed Hazard -No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC (CAS 64742-54-7)

Lubricating Oils (petroleum), Hydrotreated Spent (CAS 64742-58-1)

PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT (CAS 64742-71-8)

US. Massachusetts RTK - Substance List

PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT (CAS 64742-71-8)

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

PARAFFIN OILS (PETROLEUM), CATALYTIC DEWAXED LIGHT (CAS 64742-71-8)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Inventory name	On inventory (yes/no)*
Australian Inventory of Chemical Substances (AICS)	No
Domestic Substances List (DSL)	No
Non-Domestic Substances List (NDSL)	No
Inventory of Existing Chemical Substances in China (IECSC)	No
European Inventory of Existing Commercial Chemical Substances (EINECS)	No
European List of Notified Chemical Substances (ELINCS)	No
Inventory of Existing and New Chemical Substances (ENCS)	No
Existing Chemicals List (ECL)	No
New Zealand Inventory	No
Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
	Australian Inventory of Chemical Substances (AICS) Domestic Substances List (DSL) Non-Domestic Substances List (NDSL) Inventory of Existing Chemical Substances in China (IECSC) European Inventory of Existing Commercial Chemical Substances (EINECS) European List of Notified Chemical Substances (ELINCS) Inventory of Existing and New Chemical Substances (ENCS) Existing Chemicals List (ECL) New Zealand Inventory Philippine Inventory of Chemicals and Chemical Substances

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

, ,

No

^{*}A 'Yes' indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A 'No' indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

 Issue date
 04-13-2015

 Revision date
 12-17-2015

Version # 02

Disclaimer GROWMARK INC. cannot anticipate all conditions under which this information and its product,

or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information Hazard(s) identification: Hazard statement

Hazard(s) identification: Disposal Hazard(s) identification: Prevention Hazard(s) identification: Response Hazard(s) identification: Storage

First-aid measures: Indication of immediate medical attention and special treatment needed

Physical and chemical properties: Oxidizing properties Physical and chemical properties: Explosive properties Toxicological information: Further information Ecological information: Persistence / degradability

Regulatory information: US federal regulations
Other information, including date of preparation or last revision: Further information

GHS: Classification

Material name: FS HYDRAULIC MV ISO68