SAFETY DATA SHEET

1. Identification

Product identifier FS INDUSTRIAL HYDRAULIC OIL 32

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	%
Lubricating Oils (petroleum), Hydrotreated Spent		64742-58-1	67.08
Distillates (petroleum), solvent-dewaxed heavy paraffinic		64742-65-0	31.57
ALKYL PHENOL		Proprietary	< 0.2
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM.		64742-94-5	< 0.1
Other components below reportable le	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.

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

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 Treat symptomatically.

treatment needed

medical attention and special

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

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from 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.

During fire, gases hazardous to health may be formed.

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

Avoid prolonged exposure. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities 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	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	PEL	5 mg/m3	Mist.	
		2000 mg/m3		
		500 ppm		
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM. (CAS 64742-94-5)	PEL	400 mg/m3		
- (100 ppm		

US. ACGIH Threshold Limit Values

Туре	Value	Form
TWA	5 mg/m3	Inhalable fraction.
TWA	5 mg/m3	Inhalable fraction.
TWA	200 mg/m3	Non-aerosol.
	TWA TWA	TWA 5 mg/m3 TWA 5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Туре	Value Form	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)	Ceiling	1800 mg/m3	
,	STEL	10 mg/m3 Mist.	

Biological limit valuesNo biological exposure limits noted for the ingredient(s).

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM. Can be absorbed through the skin.

(CAS 64742-94-5)

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.

Individual protection measures, such as personal protective equipment

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

Skin protection

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

Other Wear suitable protective clothing.

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

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

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

Physical state
Form
Color
Not available.

Odor Not available.

Odor threshold
PH
Not available.

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 rateNot available.Flammability (solid, gas)Not applicable.Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper No

Not available.

(%)

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature

500 °F (260 °C) estimated

Decomposition temperatureNot available. **Viscosity**Not available.

Other information

Density 7.33 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 avoidContact 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 Direct contact with eyes may cause temporary irritation.

physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity

Components Species Test Results

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM. (CAS 64742-94-5)

<u>Acute</u>

Inhalation

LC50 Rat 61 mg/l, 4 Hours

Oral

LD50 Rat > 25 ml/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

^{*} Estimates for product may be based on additional component data not shown.

Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization

Not a respiratory sensitizer.

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

Germ cell mutagenicity No 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 toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

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.

Components		Species	Test Results	
SOLVENT NAPHTHA	(PETROLEUM), H	EAVY AROM. (CAS 64742-94-5)		
Aquatic				
Crustacea	EC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/l, 48 hours	
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours	
			8.8 mg/l, 96 hours	

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

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 instructions Collect 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).

Since emptied containers may retain product residue, follow label warnings even after container Contaminated packaging

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.

4160 Version #: 02 Revision date: 12-15-2015 Issue date: 04-22-2015

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), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)

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

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM. (CAS 64742-94-5)

US. Massachusetts RTK - Substance List

Distillates (petroleum), solvent-dewaxed heavy paraffinic (CAS 64742-65-0)

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

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM. (CAS 64742-94-5)

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

Not listed.

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

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No

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

*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
 04-22-2015

 Revision date
 12-15-2015

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

No