

GHS - SAFETY DATA SHEET

Date: 2015.08.17

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product Name High Temperature / High Shear Reference Oil – R-100

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Viscometer and/or density measurement equipment calibration and performance verification reference standard

Uses advised against No information available

1.3 Details of the supplier of the safety data sheet

Supplier Tannas Company/Savant Tech (a division of Savant, Inc.)
4800 James Savage Rd.
Midland, MI 48642 USA

1.4 Emergency telephone number

Emergency Phone 989-496-2301
Fax 989-496-3438

Section 2. Hazards identification

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008
Not classified

Physical Hazards

None

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases mentioned in this Section, see Section 16

Symbol(s) Not hazardous

2.2 Label Elements

Not classified

2.3. Other Hazards

Physical / Chemical Hazards:

No significant hazards.

Health Hazards:

Excessive exposure may result in eye, skin, or respiratory irritation.

GHS - SAFETY DATA SHEET

Date: 2015.08.17

Environmental Hazards:

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

Section 3. Composition/information on ingredients

3.1 Substances

Hydro treated base oil (Does not contain IP 346 DMSO extract)

| Chemical Name | EC-No | CAS-No | Weight % | Classification | EU-GHS Substance Classification | Type |
|-----------------------------------|----------------|------------------------------|----------|----------------|---------------------------------|------|
| Hydro treated Paraffinic Base Oil | Not classified | 64742-58-1 and/or 64742-62-7 | >99% | Not classified | 5mg/M3 TWA ACG1H | (2) |

Type

- (1) Substance classified with a health or environmental hazard.
- (2) Substance with a workplace exposure limit.

Section 4. First aid measures

4.1 Description of first-aid measures

- Eye contact: Flush with water for 15 minutes. If irritation continues, contact a physician.
- Skin contact: Wash skin thoroughly with soap and water. Launder soiled clothing. If irritation continues, contact a physician.
- Inhalation: Although inhalation of this material is unlikely, if respiratory discomfort occurs or irritation develops due to inhalation of oil mist, move person to fresh air. Contact a physician if discomfort or irritation continues.
- Ingestion: If material is swallowed, give 2 glasses of water and DO NOT induce vomiting. Contact a physician.

4.2 Most important symptom and effects, both acute and delayed

Most Important Symptoms/Effects Irritation

4.3 Indication of immediate medical attention and special treatment needed

Notes to Physician Treat symptoms

GHS - SAFETY DATA SHEET

Date: 2015.08.17

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable Extinguishing Media

Carbon dioxide, dry chemical, foam, water fog.

Extinguishing media which must not be used for safety reason

Water spray or stream.

5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

None in particular.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedure

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

6.2 Environmental precautions

Prevent spreading over a wide area by containment or oil barriers. Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Absorb large spills with commercially available absorbent materials such as absorbent clay, sand, silica gel, acid binder, universal binder, sawdust, etc.

6.4 Reference to other sections

See Section 12 for additional information.

GHS - SAFETY DATA SHEET

Date: 2015.08.17

Section 7. Handling and storage

7.1 Precautions for Safe Handling

Handling

Minimize breathing vapor, mist or fumes.

Avoid prolonged or repeated contact with skin.

Cleanse skin thoroughly after contact, before breaks and meals, and at the end of the work period.

Product is readily removed from skin by washing thoroughly with soap and water

Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including and incompatibilities

Keep containers closed when not in use and store in a cool, dry, well-ventilated area.

Do not handle or store near heat, sparks, flame or strong oxidants.

7.3 Specific end use(s)

Exposure Scenario

No information available.

Other Guidelines

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Section 8. Exposure controls/personal protection

8.1 Control Parameters

Exposure Limits

| | |
|--|--------------------------|
| Derived No Effect Level | No information available |
| Predicted No Effect Concentration (PNEC) | No information available |

8.2 Exposure controls

| | |
|----------------------|--|
| Engineering Measures | Ensure adequate ventilation, especially in confined areas. |
|----------------------|--|

GHS - SAFETY DATA SHEET

Date: 2015.08.17

Personal protective equipment

Eye Protection Use splash goggles or face shield when eye contact may occur.

Skin and Body Protection Use chemical-resistant apron or other impervious clothing, if needed, to avoid prolonged exposure or repeated skin contact.

Hand Protection Use chemical-resistant gloves if needed to avoid prolonged exposure or Repeated skin contact.

Respiratory Protection If exposure exceeds TLV, use appropriate NIOSH approved respiratory protection.

Environmental Exposure Controls No information available

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State Liquid **Appearance** Yellow

Odor Slight hydrocarbon

| Property | Values | Remarks/Method |
|--|----------------------------------|----------------|
| pH | N/A | None known |
| Melting Point/Range | N/A | None known |
| Boiling Point/Boiling Range | (>) 509°F / 265°C | None known |
| Flash Point | > 329°F minimum ASTM D92 (165°C) | None known |
| Evaporation rate | N/D | None known |
| Flammability (solid, gas) | N/A | None known |
| Vapor Pressure | <0.5 Pa at 86°F / 20°C | None known |
| Vapor Density | >1 | None known |
| Relative Density | N/A | None known |
| Specific gravity | 0.87g/cm ³ | |
| Water Solubility | Nil | None known |
| Solubility in other solvents | N/A | None known |
| Partition coefficient: n-octanol/water | N/A | None known |
| Decomposition Temperature | N/A | None known |
| Auto ignition Temperature | N/D | None known |
| Viscosity | N/A | None known |
| Explosive Properties | N/A | None known |
| Oxidizing Properties | N/A | None known |

GHS - SAFETY DATA SHEET

Date: 2015.08.17

9.2 Other information

VOC Content (%) No information available.

Flammability Limits in Air No information available.

Section 10. Stability and reactivity

10.1 Reactivity

Not reactive under normal conditions.

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

High temperature and open flames.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

May produce oxides of carbon.

10.7 Hazardous Polymerization

Will not occur

Section 11. Toxicological information

11.1 Acute Toxicity

Production information

| | |
|-------------------|---|
| Inhalation | Breathing mineral oil mists at levels above TLV may cause respiratory irritation and possible discomfort. Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs that may progress to pulmonary fibrosis. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities |
|-------------------|---|

GHS - SAFETY DATA SHEET

Date: 2015.08.17

| | |
|--|--|
| Eye Contact | May cause minor eye irritation. |
| Skin Contact | Material expected to cause no more than minor skin irritation following prolonged or repeated contact. |
| Ingestion | Not expected to be acutely toxic by ingestions. Abdominal discomfort, nausea and diarrhea may occur. |
| Medical Conditions Aggravated by Exposure | None known. |
| Sensitization | No information available. |
| Mutagenic Effects | No information available. |
| Carcinogenic Effects | No information available. |
| Reproductive Toxicity | No information available. |
| Developmental Toxicity | No information available. |
| STOT – single exposure | No information available. |
| STOT – repeat exposure | No information available. |
| Aspiration Hazard | No information available. |

Section 12. Ecological information

12.1 Toxicity

Eco toxicity Effects

Contains no substances known to be hazardous to the environment at concentration that would be significant.

12.2 Persistence and degradability

Expected to be not readily biodegradable. Product contains components that may persist in the environment.

12.3 Bio accumulative potential

Contains components with the potential to bio accumulate.

12.4 Mobility in soil

Liquid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

12.5 Results of PBT and vPvB assessment

N/A

GHS - SAFETY DATA SHEET

Date: 2015.08.17

12.6 Other adverse effects

Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Section 13. Disposal considerations

13.1 Waste treatment methods

Waste from Residues/Unused Products

Place contaminated material in disposable containers and bury in an approved landfill site per local, state and federal regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

Note: The information provided below may not apply to all shipping situation. Consult appropriate Dangerous Goods Regulations for additional requirements and mode-specific, material-specific, or quantity-specific shipping requirements.

IMDG/IMO

| | |
|--|---------------------------|
| 14.1 UN-Number | Not regulated. |
| 14.2 Proper Shipping Name | Not regulated. |
| 14.3 Hazard Class | Not regulated. |
| 14.4 Packing Group | Not regulated. |
| Description | Not regulated. |
| 14.5 Marine Pollutant | None. |
| 14.6 Special Provisions | None. |
| 14.7 Transport in bulk according To Annex II of MARPOL 73/78 and The IBC Code | No information available. |

RID

| | |
|----------------------------------|-----------------|
| 14.1 UN-Number | Not regulated |
| 14.2 Proper Shipping Name | Not regulated. |
| 14.3 Hazard Class | Not regulated. |
| 14.4 Packing Group | Not regulated. |
| Description | Not applicable. |
| 14.5 Environmental hazard | None. |
| 14.6 Special provisions | None. |

GHS - SAFETY DATA SHEET

Date: 2015.08.17

ADR

| | |
|---------------------------|-----------------|
| 14.1 NU-Number | Not regulated. |
| 14.2 Proper Shipping Name | Not regulated. |
| 14.3 Hazard Class | Not regulated. |
| 14.4 Packing Group | Not regulated. |
| Description | Not applicable. |
| 14.5 Environmental hazard | None. |
| 14.6 Special Provisions | None. |

IACO

| | |
|---------------------------|----------------|
| 14.1 UN-Number | Not regulated. |
| 14.2 Proper Shipping Name | Not regulated. |
| 14.3 Hazard Class | Not regulated. |
| 14.4 Packing Group | Not regulated. |

 Description

IACO(cont.)

| | |
|---------------------------|-------|
| 14.5 Environmental Hazard | None. |
| 14.6 Special Provisions | None. |

IATA

| | |
|---------------------------|-----------------|
| 14.1 UN-Number | Not regulated. |
| 14.2 Proper Shipping Name | Not regulated. |
| 14.3 Hazard Class | Not regulated. |
| 14.4 Packing Group | Not regulated. |
| Description | Not applicable. |
| 14.5 Environmental hazard | None. |
| 14.6 Special Provisions | None. |

U.S. DOT: Not Dangerous Goods

IMDG: Not Dangerous Goods

Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| US Federal Regulations | |
|------------------------------|--|
| US TSCA Listed | Yes |
| EPCRA 311/312/313 Categories | Immediate (Acute) Health Effects – No |
| | Delayed (Chronic) Health Effects – No |
| | Fire Hazard – No |
| | Sudden Release of Pressure Hazard – No |
| | Reactivity Hazard – No |

GHS - SAFETY DATA SHEET

Date: 2015.08.17

International Inventories

| | |
|---------------|----------|
| TSCA | Complies |
| EINECS/ELINCS | N/A |
| DSL/NDSL | N/A |
| PICCS | N/A |
| ENCS | N/A |
| IECSC | N/A |
| AICS | N/A |
| KECL | N/A |

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS – European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

PICCS – Philippines Inventory of Chemicals and Chemical Substances

ENCS – Japan Existing and new Chemical Substances

IECSC – China Inventory of Existing Chemical Substances

AICS – Australian Inventory of Chemical Substances

KECL – Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No information available

Section 16. Other information

Full text of R-phrases referred to under Section 2 and 3

No information available

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SDS Revision Date: 2015 August 17th

Revision Note: Updated Section 2 and 3

GHS - SAFETY DATA SHEET

Date: 2015.08.17

This safety data sheet compiles with the requirements of Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EU) No. 1907/2006

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End of Safety Data Sheet