SAFETY DATA SHEET

According to 29 CFR 1910.1200(g) & Canadian WHMIS 2015

DENSO PASTE HT

SECTION 1: Identification of the substance/mixture and of the company/undertaking	
1.1. Product identifier	
Product name	Denso Paste HT
1.2. Relevant identified uses of the substance or mixture and uses advised against	
Product Use	Industrial use as a primer used with protective barrier in prevention of corrosion.
Restricted Use	Not intended for use by general public.
1.3. Details of the supplier of the safety data sheet	
Company	Denso North America Inc.
Address	90 Ironside Crescent, Unit 12 Toronto, ON M1X1M3
Web	www.densona.com
Telephone	1 (416) 291-3435
Fax	1 (416) 291-0898
Email	sales@densona-ca.com
1.4. Emergency telephone number	
Emergency telephone number (24 Hour) Canutec	1 (888) 226-8832 Canutec Toll Free, *666 Cellular

SECTION 2: Hazards Identification	
2.1. Classification of the substance or mixture	
2.1.1. Health	No significant hazard
2.1.2. Environmental	No significant hazard
2.1.3. Physical	No significant hazard
2.2. Label elements	
Hazard pictograms	
Signal Word	
Hazard statement	No significant hazard.
Precautionary Statement: Prevention	No significant hazard.
Precautionary Statement: Response	No significant hazard.
Precautionary Statement: Disposal	No significant hazard.

SECTION 3: Composition/information on ingredients			
3.1. Substances			
Chemical Name	**CAS No.**	**Concentration (%w/w)**	**Classification**
Distillates, petroleum, solvent-dewaxed heavy paraffinic	64742-65-0	>80%	
Non-hazardous materials	Various	<20%	
NOTES:			

SECTION 4: First aid measures	
4.1. General advice	First aid is not normally required. However, if symptoms appear, seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
4.2. Eye contact	If irritation or redness develops from exposure, flush eyes with plenty of water for at least 15 minute, occasionally lift the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.
4.3. Skin contact	Wash with soap and water. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. For contact with hot product, flush contaminated skin with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze. Get medical attention immediately.
4.4. Ingestion	Wash out mouth with water. If material has been swallowed and the exposure person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
4.5 Inhalation	Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.
4.6. Most important symptoms and effects, both acute and delayed	
Eye contact	May cause irritation to eyes.

Skin contact	May cause irritation to skin. May be drying or irritating to skin with repeated or prolonged exposure.
Ingestion	May cause nausea and vomiting.
Inhalation	Product is a paste. Inhalation may cause difficulty breathing or suffocation.

SECTION 5: Firefighting measures

5.1. Suitable extinguishing media	Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical, Dry sand, Limestone powder. Do not use a solid water stream as it may scatter and spread fire. Do not flush into surface water.
5.2. Specific hazards	Decomposition products may include the following materials: carbon oxides, oxides of sulfur, nitrogen or phosphorus may also be formed. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes.
5.3. Special protective equipment for fire-fighters	Fire-fighters should wear appropriate personal protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1. Personal precautions	No action shall be taken involving any personal risk or without suitable training. As this product is a paste, simply wear protective gloves and recover material from release area (see section 8). Surfaces contaminated with the product will become slippery. Material may burn, but will not ignite readily. Keep all sources of ignition away from spill/release.
6.2. Environmental precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3. Methods for cleaning up	Prevent entry into sewers or water courses. Do not flush into surface water. Absorb with inert, absorbent material. Dispose of inert material following all relevant disposal regulations
6.4. Additional advice	Note: see Section 8 for personal protective equipment and Section 13 for waste disposal.

SECTION 7: Handling and storage

7.1. Handling	Put on appropriate personal protective equipment (see Section 8). Adopt best manual handling practices when handling, carrying and dispensing. Keep away from flames and hot surfaces. Wash thoroughly after handling.
7.2. Storage	Store in accordance with local regulations. Store in original container protected from

direct sunlight in a cool area, away from sparks, flames, heat and sources of ignition.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values	**CAS No.**	**ACGIH TLV**
	64742-65-0	5 mg/m^3 (as mist, if generated)

8.2. Control measures / Personal Protection

8.2.1. Recommended monitoring procedures	To meet the exposure limits for the materials listed above, personal workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.
8.2.2. Engineering measures	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
8.2.3. Hygiene measures	Wash hands, forearms, and face after handling chemical products, before eating, smoking or using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing or discard as necessary. Ensure that eyewash stations/bottles with pure water and safety showers are close to the workstation location.
8.2.4. Respiratory protection	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
8.2.5. Eye protection	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. This may include, but is not limited to, safety glasses, goggles and face shields.
8.2.6. Skin protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. This equipment may include, but is not limited to, impervious gloves, gauntlets, impervious shoes/boots, and protective clothing. The breakthrough time of the selected protective glove(s), shoes and clothing must be greater than the intended use period.
8.2.7. Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment

will be necessary to reduce emissions to acceptable levels. Environmental exposure controls may also include dikes or other liquid containment devices.

SECTION 9: Physical and chemical properties

Form	Paste	Vapor Pressure	<1 mm Hg
Color	Amber	Relative vapor density	N/A
Odor	Petroleum	Relative density	>1
Odor threshold	ND	Water solubility	Negligible
pH	about 7	Partition coefficient (n-octanol/water)	ND
Melting point	ND	Auto-ignition temperature	ND
Boiling point	ND	Decomposition temperature	ND
Flash Point	>450°F (232°C)	Viscosity	N/A
Evaporation rate	<1	Oxidizing	N/A
Flammable Limits	N/A	Explosion Limits	ND

SECTION 10: Stability and reactivity

10.1 Stability	The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
10.2. Conditions to avoid	Stable under normal conditions. Extended exposure to high temperatures can cause decomposition. Avoid all sources of ignition.
10.3. Materials to avoid	Avoid contact with strong oxidizing agents and strong reducing agents. Keep away from food, drink and animal foodstuffs.
10.4. Other hazards	
10.5. Hazardous decomposition products	Will not decompose if stored and used as recommended. If decomposition occurs, products may include the following materials: Carbon oxides

SECTION 11: Toxicological information

11.1. Acute health hazard

Product:
Remarks: Unlikely to be harmful

Acute oral toxicity:	> 5 g/kg (estimated)
Acute dermal toxicity:	>2 g/kg (estimated)
Acute inhalation toxicity:	>5 mg/L (mist, estimated)

11.2. Skin corrosion or irritation

Product:
Remarks: None expected, but repeated exposure may cause skin dryness or cracking.

11.3. Serious eye damage or irritation

Product:
Remarks: Not expected to be irritating to eyes.

11.4. Respiratory or skin

Product:

sensitization	Remarks: No data available, but not expected to be sensitizing based on components.
11.5. Germ cell mutagenicity	**Product:** Remarks: No data available, but not likely to have significant mutagenic effects based on components.
11.6. Carcinogenicity	**Product:** Remarks: No data available, but not likely to be classifiable as a human carcinogen based on components.
11.7. Reproductive toxicity	**Product:** Remarks: No data available, but not likely to have adverse effects on sexual function, fertility, and/or on development based on components.
11.8. STOT – single exposure	**Product:** Remarks: No data available, but not likely based on components.
11.9. STOT – repeated exposure	**Product:** Remarks: No data available, but not likely based on components.
11.10. Repeated dose toxicity	**Product:** Remarks: None known.
11.11. Aspiration toxicity	**Product:** Remarks: None known
11.12. Further information	Likely routes of exposure – skin and eye contact.

SECTION 12: Ecological information

12.1. Ecotoxicity	**Product:** Remarks: No data available, but studies of lubricant base oils show acute toxicity values greater than 100 mg/L for invertebrates, algae and fish.
12.2. Persistence and degradability	**Product:** Remarks: No data available, but the hydrocarbon components of this material are not readily biodegradable. However, they can be degraded by microorganisms and hence are regarded as inherently biodegradable.
12.3. Bioaccumulative potential	**Product:** Remarks: Log Kow values measured for the hydrocarbon components of this material are greater than 5.3, and therefore are regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce bioconcentration.
12.4. Mobility in soil	**Product:** Remarks: No data available. However, volatilization to air is not expected to be

	significant due to the low vapor pressure of this material. In water, base oils will float and spread over the surface at a rate dependent upon viscosity. There will be significant removal of hydrocarbons from the water by sediment adsorption. In soil and sediment, hydrocarbon components will show low mobility with adsorption to sediments being the predominant physical process. The main process is expected to be slow biodegradation of the hydrocarbon constituents in soil and sediment.
12.5. Other adverse effects	**Product:** Remarks: None anticipated. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1. Waste disposal	The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements. Avoid disposal of spilled material and runoff and contaminated soils in waterways, drains or sewers. Dispose of contaminated containers, soils, etc. in compliance with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements. Empty any remaining contents from packaging prior to disposal and dispose of as unused product. Do not reuse empty containers.

SECTION 14: Transport information

14.1. UN number	Not Regulated	
14.2. UN proper shipping name	Not Regulated	
14.3. Transport hazard class		
International Carriage of Dangerous Good by Road/Rail	ADR/RID:	Not Regulated
International Maritime Dangerous Goods	IMDG:	Not Regulated
International Air Transport Association	IATA:	Not Regulated
US Code of Federal Regulations	CFR	Not Regulated
Canadian Transportation of Dangerous Goods	TDG:	Not Regulated
US Department of Transportation	DOT:	Not Regulated

14.4. Packing group	Not regulated
14.5. Environmental hazards	Environmental hazards: No Marine pollutant: No

SECTION 15: Regulatory information

15.1. OSHA Hazards	None
15.2. CERCLA Reportable Quantity	Components CAS No. Component RQ Product RQ None
15.3. SARA 314 Extremely Hazardous Substances Reportable Quantity	This material does not contain any components with section 314 EHS RQ.
15.4. SARA 311/312 Hazards	None
15.5. SARA Title III, Section 302 Reporting	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
15.6. SARA Title III, Section 313 Reporting	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313
15.7. Clean Air Act	The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61): None This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F). The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489): None
15.8. Clean Water Act	The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 116.4A: None The following Hazardous Substances are listed under the U.S. Clean Water Act, Section 311, Table 117.3: None This product contains the following toxic pollutants listed under the U.S. Clean Water Act, Section 307: None
15.9. US State Regulations	Massachusetts Right-To-Know None Pennsylvania Right-To-Know None New Jersey Right-To-Know None

	California Prop 65 This product contains no chemicals known to the State of California to cause cancer or act as a reproductive hazard.

15.10. International Chemical Inventory Listing

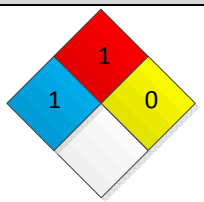
TSCA (US)	Yes (All components of this product are on US inventory)
DSL (Canada)	Yes (All components of this product are on Canadian inventory)
AICS (Australia)	Yes (On Australian inventory or in compliance with inventory)
ICS (New Zealand)	Yes (On New Zealand inventory or in compliance with inventory)
ENCS (Japan)	Yes (On Japanese inventory or in compliance with inventory)
ISHL (Japan)	Yes (On Japanese inventory or in compliance with inventory)
KECI (Korea)	Yes (On Korean inventory or in compliance with inventory)
PICCS (Philippines)	Yes (On Philippine inventory or in compliance with inventory)
IECSC (China)	Yes (On Chinese inventory or in compliance with inventory)

15.11. WHMIS Hazard Classification (Canada)

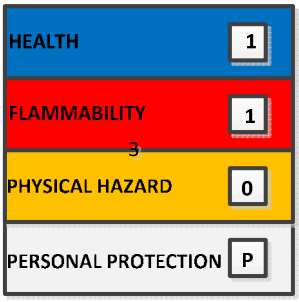
None.

SECTION 16: Other information

16.1. NFPA



16.2. HMIS®



Caution: HMIS ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS ratings are not required on SDS's under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS ratings are to be used with a fully implemented HMIS program. HMIS is a registered mark of the National Paint & Coatings Association (NPCA). HMIS materials may be purchased exclusively from J.J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

16.3. Text of Risk phrases in Section 3

None

16.4. Text of Hazard statements in Section 3	None
16.5. Notice to Reader	The information provided herein was believed by Denso North America ("Denso") to be accurate at the time of preparation and prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Denso are subject to Denso's terms and conditions of sale. DENSO MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MECHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY DENSO, except that the product shall conform to Denso's specifications. Nothing contained herein constitutes an offer for the sale of any product.
16.6. Key/Legend to abbreviations and acronyms used in the safety data sheet	ACGIH American Conference Government Industrial Hygienists AICS Australia, Inventory of Chemical Substances DSL Canada, Domestic Substances List NDSL Canada, Non-Domestic Substances List CAS Chemical Abstract Service CNS Central Nervous System EC50 Effective Concentration 50% EGEST EOSCA Generic Exposure Scenario Tool EOSCA European Oilfield Specialty Chemicals Association EINECS European Inventory of Existing Chemical Substances ENCS Japan, Inventory Existing and New Chemical Substances GHS Global Harmonization System IDLH Immediately Dangerous for Life and Health Concentrations IARC International Agency for Research on Cancer IC50 Inhibition Concentration 50% IECSC Inventory of Existing Chemical Substances in China KECI Korea, Existing Chemical Inventory LC50 Lethal Concentration 50% LD50 Lethal Dose 50% LOAEL Lowest Observed Adverse Effect Level MAK Germany Maximum Concentration Values N/A Not Applicable ND Not Determined NFPA National Fire Protection Agency NIOSH National Institute for Occupational Safety & Health NOAEL No Observable Adverse Effect Level NOEC No Observed Effect Concentration NTP National Toxicology Program NZIoC New Zealand Inventory of Chemicals OSHA Occupational Safety & Health Administration

	PEL Permissible Exposure Limit PICCS Philippines Inventory Commercial Chemical Substances PRNT Presumed Not Toxic RCRA Resource Conservation Recovery Act SARA Superfund Amendments and Reauthorization Act STEL Short-Term Exposure Limit TLV Threshold Limit Value TSCA Toxic Substance Control Act TWA Time Weighted Average UVCB Unknown or Variable Composition, Complex Reaction Products, and Biological Materials WHMIS Workplace Hazardous Materials Information System
16.7. Prepared by	Denso EH & S Department
16.8. Telephone	1 (416) 291-3435 Corporate 1 (888) 226-8832 Canutec Toll Free, *666 Cellular