SAFETY DATA SHEET

According to 29 CFR 1910.1200(g)

PROTAL 7000 PART A (RESIN)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name	Protal 7000 Part A (Resin)

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

Product Use	Industrial use as a protective coating 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
Address	9747 Whithorn Drive Houston, TX 77095
Web	www.densona.com
Telephone	1 (281) 821-3355
Fax	1 (281) 821-0304
Email	info@densona.com

1.4. Emergency telephone number

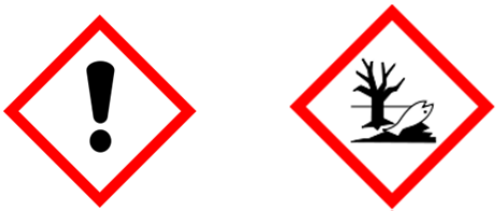
Emergency telephone number (24 Hour)	1-801-629-0667

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

2.1.1. Health	Eye corrosion – Category 2 Skin corrosion – Category 3 Skin sensitizer
2.1.2. Environmental	Acute aquatic toxicity – Category 2 Chronic aquatic toxicity – Category 2
2.1.3. Physical	None

2.2. Label elements

Hazard pictograms	
Signal Word	**Warning**
Hazard statement	H315 – Causes skin irritation H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation H401 – Toxic to aquatic life. H411 – Toxic to aquatic life with long-lasting effects.

Precautionary Statement: Prevention	P102 – Keep out of reach of children. P202 – Do not handle until all safety precautions have been read and understood P233 – Keep container tightly closed. P234 – Keep only in original container. P235 – Store in a well ventilated place. Keep cool. P261 – Avoid breathing dust/fume/gas/mist/vapors/spray. P262 – Do not get in eyes, on skin, or on clothing. P264 – Wash thoroughly after handling. P270 – Do not eat, drink, or smoke when using this product. P271 – Use only outdoors or in a well-ventilated area. P272 – Contaminated work clothing should not be allowed out of the workplace. P273 – Avoid release to the environment. P280 – Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P302+P352 – IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P314 – Get medical advice / attention if you feel unwell. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P337+P313 – If eye irritation persists: Get medical advice/attention. P363 – Wash contaminated clothing before reuse. P391 – Collect spillage.
Precautionary Statement: Disposal	P501 – Dispose of contents/container in accordance with local/ national regulations.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical Name	CAS No.	Concentration (%w/w)	Classification
Reaction product: bisphenol-A- (epichlorohydrin); epoxy resin (number average molecular weight < 700)	25068-38-6	20-40%	Skin Irr-2; H315 Eye Irr-2; H319 Skin Sens-1; H317 Aqua Chronic–2; H411
2-Ethylhexyl glycidyl ether	2461-15-6	1-10%	Skin Irr–2; H315 Skin Sens-1; H317 Aqua Acute-3; H402 Aqua Chronic-3; H412
Der 736	41638-13-5	1-10%	Skin Irr–2; H315 Eye Irr–2; H319 Skin Sens-1; H317 Aqua Chronic-3; H412
Quartz	14808-60-7	10-30%	(1) (2)

Magnesium Silicate	14807-96-6	10-30%	(1) (2)
Titanium Dioxide	13463-67-7	1-10%	(2)

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

SECTION 4: First aid measures

4.1. General advice
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
Immediately flush eyes with plenty of water for at least 15 minute, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.

4.3. Skin contact
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. 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. Remove dentures, if any. Move exposed person to fresh air. Keep person warm and at rest. 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	Irritating to eyes.

Skin contact	Irritating to skin. May cause sensitization by skin contact. May aggravate pre-existing conditions.
Ingestion	May cause nausea and vomiting
Inhalation	May cause irritation to respiratory system.

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.
5.2. Specific hazards	Decomposition products may include the following materials: carbon oxides. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes.
5.3. Special protective equipment for fire-fighters	Avoid contact with skin. Fire-fighters should wear appropriate personal protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
5.4. Further information	Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled materials. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
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	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Use absorbent with inert material. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed, waste-disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
6.4. Additional advice	Stop leak if without risk.

SECTION 7: Handling and storage

7.1. Handling	Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking or smoking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do

	not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
7.2. Storage	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
7.3. Technical precautions	Do not store in reactive metal containers.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

CAS No.	ACGIH TLV
25068-38-6	None established
2461-15-6	None established
41638-13-5	None established
14808-60-7	0.025 mg/m^3 (as respirable dust)
14807-96-6	2 mg/m^3 (as respirable dust)
13463-67-7	None established

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	Viscous Liquid	Vapor Pressure	ND
Color	White	Relative vapor density	>1
Odor	Mildly irritating	Relative density	1.7
Odor threshold	ND	Water solubility	Slight
pH	about 7	Partition coefficient (n-octanol/water)	ND
Freezing point	ND	Auto-ignition temperature	ND
Boiling point	ND	Decomposition temperature	ND
Flash Point	>200°F (93°C)	Viscosity	175,000 cP @ 73°F (22°C)
Evaporation rate	N/A	Oxidizing	N/A
Flammable Limits	ND	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	Temperatures greater than 300°F (149°C)
10.3. Materials to avoid	Reactive or incompatible with the following materials: Oxidizing materials, Strong acids, Strong alkalis (such as amines)
10.4. Other hazards	Reacts with considerable heat release with some curing agents, such as amines.
10.5. Hazardous decomposition products	Decomposition products may include the following materials: Carbon oxides, hydrocarbons, noxious/toxic fumes

SECTION 11: Toxicological information

11.1. Acute health hazard

Product:

Acute oral toxicity: ND

Acute dermal toxicity: ND

Components:

25068-38-6

Acute oral toxicity:	LD50 (rat):	30,000 mg/kg
Acute dermal toxicity:	LD50 (rat):	>1,200 mg/kg

2461-15-6

Acute oral toxicity:	LD50 (rat):	>5,000 mg/kg
Acute dermal toxicity:	LD50 (rabbit):	>2,000 mg/kg

41638-13-5

Acute oral toxicity:	LD50 (rat):	>2,000 mg/kg
Acute dermal toxicity:	LD50 (rabbit):	>2,000 mg/kg

Acute toxicity data are not available for other components of this product.

11.2. Skin corrosion or irritation

Product: No data available, but may cause skin irritation in susceptible persons based on components present.

Components:

25068-38-6	Irritating to skin	Adult rabbit
2461-15-6	Irritating to skin	Similar materials
41638-13-5	Irritating to skin	Similar materials

Other components in this product are not irritating to the skin except after prolonged exposure.

11.3. Serious eye damage or irritation

Product: No data available, but likely to be irritating to the eye based on components present.

Components:

25068-38-6	Irritating to eyes	Adult rabbit
2461-15-6	Slightly irritating to eyes	Adult rabbit
41638-13-5	Moderately irritating to eyes	Similar materials

Other components in this product are not irritating to eyes except by mechanical irritation as a solid particle.

11.4. Respiratory or skin sensitization

Product: No data available, but may cause skin sensitization in susceptible persons based on components present. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. May aggravate pre-existing skin conditions like dermatitis.

Components:

25068-38-6	Causes skin sensitization	Adult guinea pig
2461-15-6	Causes skin sensitization	Adult guinea pig

	41638-13-5 Not established Other components in this product are not known to be sensitizing.
11.5. Germ cell mutagenicity	**Product:** No data available, but not likely to be mutagenic based on components present. **Components:** Remarks: None of the components is known to have significant mutagenic effects.
11.6. Carcinogenicity	**Product:** No data available. **Components:** 14808-60-7 Remarks: Known carcinogen via inhalation (IARC) 14807-98-6 Remarks: Talc may contain crystalline silica. IARC has concluded that there is limited evidence of carcinogenicity of crystalline silica in humans and sufficient evidence of carcinogenicity of crystalline silica in experimental animals (IARC Class 2A). The NTP has concluded that crystalline silica (respirable) may reasonably be expected to be a carcinogen.
11.7. Reproductive toxicity	**Product:** No data available, but not known to have adverse effects on sexual function, fertility, and/or on development. **Components:** None of the components is classified as a reproductive toxin.
11.8. STOT – single exposure	**Product:** No data available, but irritation to skin and eyes and sensitization are possible. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. May aggravate pre-existing skin conditions like dermatitis. **Components:** 14808-60-7 Remarks: If particulates are inhaled, irritation to the respiratory system may occur.
11.9. STOT – repeated exposure	**Product:** No data available, but irritation and/or sensitization to the skin and eyes is possible. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. May aggravate pre-existing skin conditions like dermatitis. **Components:** 14808-60-7 Remarks: If particulates are inhaled, damage to the kidneys, lungs, and autoimmune system may occur.
11.10. Repeated dose toxicity	**Product:** No data available, but likely to cause skin irritation and may cause sensitization. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. May aggravate pre-existing skin conditions like dermatitis.

Components:

25068-38-6	Skin and eye irritation, sensitization.
2461-15-6	Skin and eye irritation, sensitization.
41638-13-5	Skin and eye irritation, sensitization.
14808-60-7	Silicosis, Cancer, Pulmonary Tuberculosis, Kidney disease, autoimmune diseases, non-malignant respiratory diseases
14807-96-6	Talc may contain crystalline silica. Repeated inhalation to crystalline silica may result in silicosis, cancer, pulmonary tuberculosis, kidney disease, autoimmune diseases, and non-malignant respiratory diseases.

11.11. Aspiration toxicity

Product: None known
Components: None known

11.12. Further information

Likely routes of exposure – inhalation; skin and eye contact.

SECTION 12: Ecological information

12.1. Ecotoxicity

Product: No data available, but likely to be toxic to aquatic life based on components present.
Components:

25068-38-6

Toxicity to fish – 96 h	LC50: 3.1 mg/L	Test type: Fathead minnow
Toxicity to daphnia and other aquatic invertebrates – 48 h		
	LC50: 1.3 mg/L	Test type: Similar material

2461-15-6

Toxicity to fish – 24 h	LC50: 14 mg/L

41638-13-5

Toxicity to fish – 96 h	LC50: 67 mg/L	Test Type: Similar material
Toxicity to daphnia and other aquatic invertebrates – 48 h		
	EC50: 90 mg/L	Test Type: Similar material

Other components of this product are not toxic to aquatic life.

12.2. Persistence and degradability

Product: No data available, but likely to be persistent based on components present.
Components:

25068-38-6	Biodegradability after 28 days – 12%	Not readily biodegradable
2461-15-6	Not readily biodegradable	
41638-13-5	Not readily biodegradable	
14808-60-7	Persistent/Not biodegradable	
14807-98-6	Persistent/Not biodegradable	
13463-67-7	Persistent/Not biodegradable	

12.3. Bioaccumulative potential	**Product:** No data available **Components:** No data available
12.4. Mobility in soil	**Product:** No data available **Components:** No data available
12.5. Other adverse effects	**Product:** No data available. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal, toxic to aquatic life with long-lasting effects. **Components:** No data available

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	UN3082	
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)	
14.3. Transport hazard class		
International Carriage of Dangerous Good by Road/Rail	ADR/RID:	9
International Maritime Dangerous Goods	IMDG:	9
International Air Transport Association	IATA:	9
US Code of Federal		

Regulations	CFR	Not Regulated
Canadian Transportation of Dangerous Goods	TDG:	Not Regulated
US Department of Transportation	DOT:	Not Regulated in non-bulk packaging (Drums/Pails/Cans)
14.4. Packing group	III	
14.5. Environmental hazards	Environmental hazards: Yes	Marine pollutant: Yes
	ADR/RID	
	Hazard ID: 90	Tunnel Category: (E)
	IMDG	
	EmS Code: F-A S-F	
	IATA	
	Packing Instruction (Cargo): 964	Maximum quantity: 450 L
	Packing instruction (Passenger): 964	Maximum quantity: 450 L

SECTION 15: Regulatory information

15.1. OSHA Hazards	Irritant, Sensitizer
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
14808-60-7 Crystalline silica (Quartz) is a hazardous substance.

Pennsylvania Right-To-Know
14808-60-7 Crystalline silica (Quartz) is a hazardous substance.

New Jersey Right-To-Know
14808-60-7 Crystalline silica (Quartz) is a hazardous substance.

California Prop 65
WARNING! This product contains a chemical known to the State of California to cause cancer.
14808-60-7 Crystalline silica (Quartz – airborne particles of respirable size)

15.10. International Chemical Inventory Listing

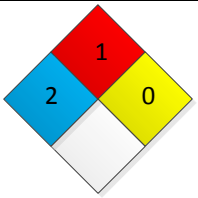
TSCA (US)	Yes (All components of this product are on US inventory)
DSL (Canada)	Yes (All components of this product are on Canadian inventory)
AICS (Australia)	Yes (On Australian inventory or in compliance with inventory)
ICS (New Zealand)	Yes (On New Zealand inventory or in compliance with inventory)
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)

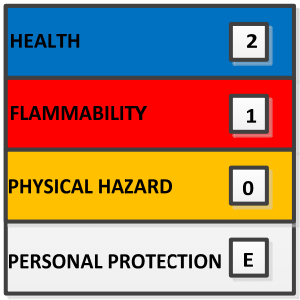
15.11. WHMIS Hazard Classification (Canada)

Class D-2B: Material causing other toxic effects (Toxic).
Canadian NPRI: None required.

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	H315 – Causes skin irritation H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation. H402 – Harmful to aquatic life. H411 – Toxic to aquatic life with long-lasting effects. H412 – Harmful to aquatic life with long-lasting effects.
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 to Life or 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	1-281-821-3355 Corporate 1-801-629-0667 Emergency (24 hour)