



SAFETY DATA SHEET

According to 29 CFR 1910.1200(g)

PROTAL 7000 PART B (HARDENER)

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

1.1. Product identifier

Product name PROTAL 7000 Part B (Hardener)

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
Acute Toxicity, Oral – Category 4
Skin Irritation – Category 2
Eye Damage – Category 2
Skin sensitizer – Category 1
Specific Target Organ Toxicity – Single Exposure – Category 3 (Inhalation)
Specific Target Organ Toxicity – Repeated Exposure – Category 2 (Inhalation, Ingestion)

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

Danger



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Hazard statement	H302 – Harmful if swallowed. H315 – Causes skin irritation. H317 – May cause an allergic skin reaction. H319 – Causes serious eye irritation. H335 – May cause respiratory irritation. H373 – May cause damage to organs (eyes, lungs, CNS, liver, kidneys, heart) through prolonged or repeated exposure if inhaled or ingested. 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. P284 – In case of inadequate ventilation, wear respiratory protection.
Precautionary Statement: Response	P301+P310+P331 – IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. P303+P361+P353+P352 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. P304+P340+P310 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P305+P351+P338+P310 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. 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/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

3.1. Substances



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Chemical Name	CAS No.	Concentration (%w/w)	Classification
N-Aminoethylpiperazine	140-31-8	10-30%	Skin Irr 2; H315 Eye Irr 2; H319 Aqua Acute/Chronic 2; H411
4,4'-Isopropylidene-diphenol	80-05-7	1-10%	(1) (2)
Reaction product: bisphenol-A- (epichlorohydrin); epoxy resin (number average molecular weight < 700)	25068-38-6	5-20%	Skin Irr 2; H315 Eye Irr 2; H319 Skin Sens 1; H317 Aq Chronic 2; H411
Triethylenetetramine	112-24-3	1-10%	Acute Tox (Oral) 4; H302 Acute Tox (Derm) 4; H312 Skin Irr 1B; H314 Skin Sens 1; H317 Aqua Chronic 3; H412
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	10-30%	Acute Tox (Oral) 4; H302 Eye Irr 2; H319 STOT SE (Inh) 3; H335
Benzyl dimethylamine	103-83-3	1-5%	Flam Liq 3; H226 Acute Tox (Oral) 4; H302 Acute Tox (Derm) 4; H312 Acute Tox (Inh) 4; H332 Skin Irr 1B; H314
Aminoethyl aminopropyl trimethoxy silane (3)	1760-24-3	1-10%	Acute Tox (Oral) 1; H300 Skin Sens 1; H317 STOT SE (Inh) 2; H336 STOT SE (Oral) 2; H372
4-Nonyl phenol, branched	84852-15-3	1-10%	Skin Irr 2; H315 Eye Irr 2; H319 Aqua Acute/Chronic 1; H411
NOTES:	<p>(1) Substance classified with a health or environmental hazard. (2) Substance with a workplace exposure limit. (3) Contains small quantities of methanol and may generate methanol upon contact with moisture.</p>		

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.
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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 immediately.

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. Get medical attention immediately. 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 immediately. 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 immediately. 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

Severe eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. In severe cases, eye damage may occur.

Skin contact

Severe skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause allergic skin reaction or sensitization. In severe cases, chemical burns may occur.

Ingestion

Harmful if swallowed. May produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. May cause abdominal pain, nausea, vomiting, or diarrhea. Product contains small amount of methanol and a component that may produce additional methanol in contact with moisture. Methanol may cause additional symptoms such as headache, dizziness, shortness of breath, weakness, fatigue, leg cramps, restlessness, confusion, drunken behavior, visual disturbances, drowsiness, coma, and death. There may be a delay of several hours



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Inhalation

between swallowing methanol and the onset of signs and symptoms. 60-200 ml of methanol is a fatal dose for most adults. Ingestion of as little as 10 ml methanol has caused blindness. With massive overdoses, liver, kidney and heart muscle injuries have been described.

Vapors are irritating to the eyes, nose, throat, and lungs. May cause irritation to respiratory system with throat discomfort, coughing or difficulty breathing. Product contains small amount of methanol and a component that may produce methanol in contact with moisture. Methanol vapor may cause dizziness, drowsiness, disturbances of vision, and tingling, numbness, and shooting pains in the hands and forearms. Long-term, repeated overexposure to methanol vapor concentrations of 3000 ppm or greater may allow a cumulative effect to occur with resulting nausea, vomiting, headache, ringing in the ears, insomnia, trembling, unsteady gait, vertigo, clouded and double vision. Liver and/or kidney injury may occur. Prolonged over exposure at levels of 800-1000 ppm may result in severe eye damage in some persons.

SECTION 5: Firefighting measures

5.1. Suitable extinguishing media

Alcohol-resistant foam, Carbon dioxide (CO₂), Dry chemical, or water spray. 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; nitrogen 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. Component of this product reacts with water to produce methanol.

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



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6.4. Additional advice 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 in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep away from heat, sparks, and flames. 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
140-31-8	None established
80-05-7	5 mg/m ³ (dust)
25068-38-6	None established
112-24-3	None established
68410-23-1	None established
103-83-3	None established
1760-24-3	None established
84852-15-3	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,



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	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. Select equipment to provide protection from the ingredients in Section 3 of this document.
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	Liquid	Vapor Pressure	ND
Color	Yellow	Relative vapor density	>1
Odor	Irritating	Relative density	1.04
Odor threshold	ND	Water solubility	Slight
pH	about 10	Partition coefficient (n-octanol/water)	ND
Freezing point	ND	Auto-ignition temperature	ND
Boiling point	ND	Decomposition temperature	ND
Flash Point	ND	Viscosity	7,000 cP @ 73°F (22°C)
Evaporation rate	N/A	Oxidizing	N/A
Flammable Limits	ND	Explosion Limits	ND



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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	Heat, flames, sources of ignition.
10.3. Materials to avoid	Reactive or incompatible with the following materials: Strong oxidizing agents, acids, alcohols, cresol, glycol, isocyanates, phenol, vinyl acetates, strong bases
10.4. Other hazards	Reacts with considerable heat release.
10.5. Hazardous decomposition products	Decomposition products may include the following materials: Carbon oxides, Nitrogen oxides, Ammonia, Toxic/Noxious fumes.

SECTION 11: Toxicological information

11.1. Acute health hazard	Product: Acute oral toxicity: ND Acute dermal toxicity: ND Components: 140-31-8 Acute oral toxicity: LD50 (rabbit): 2097 mg/kg Acute dermal toxicity: LD50 (rabbit): 866 mg/kg 80-05-7 Acute oral toxicity: LD50 (rat): 3,250 mg/kg Acute dermal toxicity: LD50 (rabbit): 3,000 mg/kg 25068-38-6 Acute oral toxicity: LD50 (rat): 30,000 mg/kg Acute dermal toxicity: LD50 (rat): >1,200 mg/kg 112-24-3 Acute oral toxicity: LD50 (rat): >300-2,000 mg/kg Acute dermal toxicity: LD50 (rat): >1,000-2,000 mg/kg 68410-23-1 Acute oral toxicity: LD50 (rat): >5,000 mg/kg Acute dermal toxicity: LD50 (rat): >5,000 mg/kg 103-83-3 Acute oral toxicity: LD50 (rat): 265 mg/kg Acute dermal toxicity: LD50 (rabbit): 1,660 mg/kg Acute inhalation toxicity: LC50 (rat): 2.06 mg/L (4 h) 1760-24-3 No data available.
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11.2. Skin corrosion or irritation

84852-15-3

Acute oral toxicity: LD50 (rat): 580 mg/kg

Acute dermal toxicity: LD50 (rabbit): 2,031 mg/kg

Product: No data available, but likely to cause skin irritation or burns based on components present.

Components:

140-31-8	adult rabbit	corrosive to skin
25068-38-6	adult rabbit	slight to moderate irritation to skin
112-24-3		Causes burns.
68410-23-1		Slightly irritating.
103-83-3		Strongly corrosive to skin.
84852-15-3	rabbit	severe irritation and burns

No skin irritation data available or sufficient for classification for other components present.

11.3. Serious eye damage or irritation

Product: No data available, but likely to be corrosive to eyes and may cause severe damage including blindness based on components present.

Components:

140-31-8	adult rabbit	corrosive to eyes
25068-38-6	adult rabbit	slightly irritating
112-24-3		Causes serious eye damage.
68410-23-1		Severely irritating.
103-83-3		Strongly corrosive to eyes.
84852-15-3	rabbit	severe irritation and burns

No eye irritation data available or sufficient for classification for other components present.

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:

140-31-8	adult guinea pig	Causes skin sensitization
25068-38-6	adult guinea pig	Causes skin sensitization
112-24-3	adult guinea pig	May cause sensitization by skin contact.
84852-15-3	guinea pig	not sensitizing

No sensitization data available or sufficient for classification for other components present.

11.5. Germ cell mutagenicity

Product: No data available, but not likely to be mutagenic based on components.

Components:



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Remarks: None of the components is known to have significant mutagenic effects.

11.6. Carcinogenicity

Product: No data available.

Components: None of the components is classified as a carcinogen.

11.7. Reproductive toxicity

Product: Not Determined.

Components: None of the components is known to have significant reproductive effects.

11.8. STOT – single exposure

Product: No data available, but irritation, sensitization and/or burns to respiratory system, skin, and eyes are likely– Lungs, Skin, and Eyes. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. May aggravate pre-existing skin conditions like dermatitis.

Components:

See Sections 11.2, 11.3, and 11.4 for specific information regarding the effects of the components.

11.9. STOT – repeated exposure

Product: No data available, but, based on components, may cause damage to organs through prolonged or repeated exposure – Kidneys, CNS, Heart, Liver, Lungs, Skin, and Eyes.

11.10. Repeated dose toxicity

Product: No data available, but, based on components, Causes skin and eye irritation, damage, burns. Changes to the kidneys, CNS, heart, liver, lungs, skin and eyes possible.

11.11. Aspiration toxicity

Product: Not determined.

Components: Not determined.

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:

140-31-8

Toxicity to fish – 96 h LC50: >100 mg/L

Toxicity to daphnia and other aquatic invertebrates – 48 h

LC50: 32 mg/L

Toxicity to algae – 72 h LC50: >1,000 mg/L

80-05-7

Toxicity to fish – 96 h LC50: 4.6 mg/L

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



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LC50: 1.3 mg/L

112-24-3

Toxicity to fish – 96 h LC50: >100 mg/L

Toxicity to daphnia and other aquatic invertebrates – 48 h
LC50: >10-100 mg/L

Toxicity to algae – 72 h LC50: >10-100 mg/L

1760-24-3

Toxicity to fish – 96 h LC50: >100 mg/L

Toxicity to daphnia and other aquatic invertebrates – 48 h
LC50: 87.4 mg/L

Toxicity to algae – 96 h LC50: 8.8 mg/L

84852-15-3

Toxicity to fish – 96 h static LC50: 0.05 mg/L

Toxicity to daphnia and other aquatic invertebrates – 48 h static
EC50: 0.085 mg/L

Toxicity to algae – 96 h ErC50: 0.41 mg/L

No Ecotoxicity data available or sufficient for classification for other components present.

12.2. Persistence and degradability

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

Components:

140-31-8 Remarks: <60% after 28 days.

25068-38-6 Remarks: 12% after 28 days.

112-24-3 Remarks: Not readily biodegradable.

1760-24-3 Remarks: This component degrades through hydrolysis into alcohols and silanol- and/or siloxanol compounds.

84852-15-3 Remarks: 100% after 63 days.

No persistence data available or sufficient for classification for other components present.

12.3. Bioaccumulative potential

Product: No data available

Components: Not determined.

12.4. Mobility in soil

Product: Not determined.

Components: Not determined.

12.5. Other adverse effects

Product: Not determined. 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

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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

UN3066

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class

International Carriage of Dangerous Good by Road/Rail
 International Maritime Dangerous Goods
 International Air Transport Association
 US Code of Federal Regulations
 Canadian Transportation of Dangerous Goods
 US Department of Transportation

ADR/RID:	8
IMDG:	8
IATA:	8
CFR	8
TDG:	8
DOT:	8

14.4. Packing group

II

14.5. Environmental hazards

Environmental hazards: Yes	Marine pollutant: Yes
IMDG	
EmS Code:	F-A S-B
IATA	



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Packing Instruction (Cargo): 855 Maximum quantity: 30 L
Packing instruction (Passenger): 851 Maximum quantity: 1 L

SECTION 15: Regulatory information

15.1. OSHA Hazards	Irritant, Sensitizer, Corrosive			
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 a section 314 Extremely Hazardous Substances RQ.			
15.4. SARA 311/312 Hazards	Acute health hazard, Chronic health hazard			
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	The following chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313: 4,4'-Isopropylidenediphenol			
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 SOCM I 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			
	4,4'-Isopropylidenediphenol		80-05-7	
	N-aminoethylpiperazine		140-31-8	
	Pennsylvania Right-To-Know			
	4,4'-Isopropylidenediphenol		80-05-7	
	N-aminoethylpiperazine		140-31-8	



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New Jersey Right-To-Know

4,4'-Isopropylidenediphenol	80-05-7
N-aminoethylpiperazine	140-31-8
Benzyl dimethylamine	103-83-3

California Prop 65

This product contains no chemicals known to the State of California to cause cancer.
This product contains no chemicals known to the State of California to cause birth defects or other reproductive harm.

15.10. International Chemical Inventory Listing

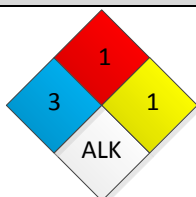
TSCA (US)	Yes (All components of this product are on US inventory)
DSL (Canada)	Yes (All components of this product are on Canadian inventory)
AICS (Australia)	Yes (On Australian inventory or in compliance with inventory)
ICS (New Zealand)	Yes (On New Zealand inventory or in compliance with inventory)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

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	E

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



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16.3. Text of Risk phrases in Section 3

(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.

None.

16.4. Text of Hazard statements in Section 3

H226 – Flammable liquid and vapor.
H300 – Fatal if swallowed.
H302 – Harmful if swallowed.
H312 – Harmful in contact with skin.
H314 – Causes skin severe skin burns and eye damage.
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation.
H332 – Harmful if inhaled.
H335 – May cause respiratory irritation.
H336 – May cause drowsiness or dizziness.
H372 – Causes damage to organs through prolonged or repeated exposure.
H411 – Toxic to aquatic life with long-lasting effects.
H412 – Harmful to aquatic life with long-lasting effects.

16.5. Notice to Reader

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16.6. Key/Legend to abbreviations and acronyms used in the safety data sheet

ACGIH American Conference Government Industrial Hygienists
ADR European Agreement for International Carriage of Dangerous Materials Road
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
DOT Department of Transportation
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



SAFETY DATA SHEET

According to 29 CFR 1910.1200(g)

GHS	Global Harmonization System
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IC50	Inhibition Concentration 50%
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
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 Available
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
RID	European Agreement for International Carriage of Dangerous Materials Rail
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act
STEL	Short-Term Exposure Limit
TDG	Transportation of Dangerous Goods (Canada)
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

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