Dur-A-Gard 50/50 Fast Hardener
Dur-A-Gard 50/50 Regular Hardener
SAFETY DATA SHEET

1. IDENTIFICATION

Product Identifier: Dur-A-Gard 50/50 Hardener – Regular or Fast

Recommended use: Floor Surfacing

Manufacturer Name: Dur-A-Flex, Inc.
95 Goodwin Street
East Hartford, CT 06108
Telephone number: 860-528-9838

Emergency phone number: 1-800- 424-9300 (CHEMTREC)

Date of Preparation: December 12, 2014

2. HAZARD(S) IDENTIFICATION

This product is one part of a 2 part product. Read and understand the hazard information on the SDS for Dur-A-Gard 50/50 Resin before using this product.

Classification:

Physical	Health
Not Hazardous	Acute Toxicity Category 4 (Oral) Skin Corrosion Category 1A Eye Damage Category 1 Skin Sensitization Category 1 Specific Target Organ Toxicity – Repeat Exposure Category 2 Germ Cell Mutagenicity Category 2

Labeling:

Danger!

Hazard statement(s)

Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May cause damage to liver, kidneys and

Precautionary statement(s)

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist, vapors or spray.

central nervous system through prolonged or repeated exposure.
Suspected of causing genetic defects.

Contaminated work clothing should not be allowed out of the workplace.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing and eye and face protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Immediately call a POISON CENTER or doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.
Wash contaminated clothing before reuse.
Immediately call a POISON CENTER or doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER or doctor.
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.
IF exposed or concerned: Get medical attention. Store locked up.
Store locked up.
Dispose of contents and container in accordance with local and national regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Benzyl Alcohol	100-51-6	30-50
3, Aminomethyl -3,5,5-Trimethylcyclohexylamine	2855-13-2	10-40
Salicylic Acid	69-72-7	1-10
Polymer of Epichlorohydrin-Polyglycol	Proprietary	1-10
1, 5 Pentanediamine, 2 Methyl	15520-10-2	1-10
Triphenyl Phosphite	101-02-0	1-10
Benzene-1,3-Dimethanamine	1477-55-0	1-10
Phenol	108-95-2	1-5
Diglycidyl Ether Bisphenol A Epoxy Resin	25068-38-6	1-5
1,3-cyclohexanedimethanamine	2579-20-6	0-20

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Inhalation: Remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get medical attention.

Skin contact: Immediately remove contaminated clothing. Wash skin thoroughly with soap and water. Get immediate medical attention. If rash occurs, get medical attention. Launder clothing before re-use.
Eye contact: Immediately flush with large quantities of water for 15 minutes, holding the eyelids apart. Get immediate medical attention.
Ingestion: If conscious, rinse mouth with water. Never give anything by mouth to an unconscious or convulsing person. DO NOT INDUCE VOMITING. Get immediate medical attention.

Most important symptoms/effects, acute and delayed: May cause severe eye and skin irritation with possible burns. May cause allergic skin reaction. Inhalation of vapors or mists may cause irritation of mucous membranes and upper respiratory tract. Harmful if swallowed. Prolonged over exposure to phenol may cause kidney, liver and central nervous system effects. Possible developmental hazard. Possible mutagen.

Indication of immediate medical attention and special treatment, if necessary: For eye and skin contact, get immediate attention. If swallowed, get immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use water spray, foam, carbon dioxide or dry chemical. Cool fire exposed containers with water.

Specific hazards arising from the chemical: Combustion may produce carbon and nitrogen oxides, aldehydes, ammonia, hydrocarbon fragments, phosphorous and phosphorous acid.

Special protective equipment and precautions for fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate protective clothing as described in Section 8.

Environmental precautions: Prevent release to the environment. Report releases as required by local, state and federal authorities.

Methods and materials for containment and cleaning up: Contain and collect with an inert absorbent. Place into an appropriate container for disposal. Caution slip hazard. Wash spill site with soap and water.

7. HANDLING AND STORAGE

Precautions for safe handling: Prevent contact with eyes and skin. Do not breathe vapors or mists. Wash thoroughly after handling and before eating, drinking, smoking or using the toilet. Do not taste or swallow. Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities: Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from physical damage. Store away from oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Benzyl Alcohol	10 ppm TWA AIHA WEEL
3, Aminomethyl -3,5,5-Trimethyl	None Established
Salicylic Acid	None Established
Polymer of Epichlorohydrin-Polyglycol	None Established
1, 5 Pentanediamine, 2 Methyl	None Established
Triphenyl Phosphite	None Established
Benzene-1,3-Dimethaneamine	0.1 mg/m^3Ceiling ACGIH TLV
Phenol	5 ppm, skin TWA OSHA PEL 5 ppm, skin TWA ACGIH TLV
Diglycidyl Ether Bisphenol A Epoxy Resin	None Established
1,3-cyclohexanedimethanamine	None Established

Appropriate engineering controls: Use with adequate general or local exhaust ventilation to maintain exposures below occupational exposure limits.

Personal Protective Equipment:
Respiratory protection: If the exposures are exceeded, a NIOSH approved respirator with an organic vapor cartridge and a dust/mist prefilter or supplied air respirator is recommended. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice**.**
Skin protection: Wear impervious gloves such as 4H™.
Eye protection: Chemical safety goggles and faceshield recommended.
Other: Impervious clothing as needed to prevent contact. An eye wash and safety shower should be available in the immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Clear liquid
Odor: Mild amine odor

Odor threshold: Not available	**pH:** Not available
Melting Point/Freezing Point: Not available	**Boiling Point:** 425°F / 218.3°C
Flash point: 220 °F / 104.4°C	**Evaporation rate:** Not available
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: Not available	**UEL:** Not available
Vapor pressure: 0.1 mmHg	**Vapor density:** Not available
Relative density: 0.991	**Solubility(is):** Partially soluble in water
Partition coefficient: n-Octanol/water: Not applicable	**Auto-ignition temperature:** Not available
Decomposition temperature: Not available	**Viscosity:** Not available

10. STABILITY AND REACTIVITY

Reactivity: None known.
Chemical stability: Stable
Possibility of hazardous reactions:
Conditions to avoid: Avoid uncontrolled reaction with epoxy resins.
Incompatible materials: Avoid contact with oxidizing agents, acids, bases, reactive metals, ammonia, ketones, aldehydes, acetaldehyde, aluminum alkyl compounds and halogenated compounds. .
Hazardous decomposition products: Thermal decomposition may produce carbon and nitrogen oxides, aldehydes, ammonia, hydrocarbon fragments, phosphorous and phosphorous acid.

11. TOXICOLOGICAL INFORMATION

Inhalation: Inhalation of vapors and mists may cause mucous membrane and upper respiratory tract irritation. Excessive vapors may cause burns to the mucous membranes and cause lung damage.
Ingestion: Swallowing may cause burns to the mouth, throat and stomach with nausea, vomiting and diarrhea.
Skin contact: May cause severe irritation or burns. May cause allergic skin reaction.
Eye contact: May cause severe irritation or burns with redness, tearing, stinging and swelling. May cause permanent damage.

Chronic effects from short- and long-term exposure: Prolonged overexposure to phenol has been shown to cause kidney, liver and central nervous system damage.

Reproductive Toxicity: None of the components have been shown to cause reproductive or developmental toxicity.

Sensitization: 3, Aminomethyl -3,5,5-trimethyl, diglycidyl ether bisphenol A epoxy resin, triphenyl phosphite and Benzene-1,3-Dimethanamine have been shown to cause sensitization in studies with laboratory animals.

Mutagenicity: Phenol has been shown to cause mutagenicity in in vitro mammalian mutagenicity assays.

Carcinogenicity: None of the components are listed as a carcinogen by IARC, NTP, ACGIH or OSHA.

Acute Toxicity Values: No toxicity data for the product. The acute toxicity value for the product: Oral 806 mg/kg. Dermal 7575 mg/kg, Inhalation 10.5 mg/L/4 hr
Benzyl Alcohol: Oral rat LD50 1620 mg/kg; Inhalation rat LC50 > 4.178 mg/L
3, Aminomethyl -3,5,5-Trimethyl: Oral rat LD50 1030 mg/kg; Inhalation rat LC50 >5.01 mg/L/4 hr; Dermal rabbit LD50 >2000 mg/kg
Salicylic Acid: Oral rat LD50 891 mg/kg; Dermal rabbit LD50 > 2000 mg/kg
Polymer of Epichlorohydrin-Polyglycol: Oral rat LD50 >2000 mg/kg, Dermal rabbit LD50 >2000
1, 5 Pentanediamine, 2 Methyl: Oral rat LD50 1690 mg/kg; Inhalation rat LC50 4.9 mg/L/1 hr.; Dermal rabbit LD50 1870 mg/kg
Triphenyl Phosphite: Oral rat LD50 1.59 g/kg; Inhalation rat LC50 > 6.7 mg/L/1 hr; Dermal rabbit LD50 >2000 mg/kg
Benzene-1,3-Dimethanamine: Oral rat LD50 500 mg/kg; Inhalation rat LC50 1.34 mg/L/4 hr; Dermal rat LD50 > 3100 mg/kg
Phenol: Oral rat LD50 650 mg/kg; Inhalation rat LC50 >900 mg/m3/8 hr.; Dermal rabbit LD50 660 mg/kg
Diglycidyl Ether Bisphenol A Epoxy Resin: Oral rat LD50 > 2000 mg/kg; Dermal rabbit LD50 >2000 mg/kg

1,3-cyclohexanedimethanamine: Oral rat LD50 >300 – 2000 mg/kg; Dermal rabbit LD50 1700 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Benzyl Alcohol: 96 hr LC50 Pimephales promelas 770 mg/L; 48 hr EC50 daphnia magna 230 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata 770 mg/L
3, Aminomethyl -3,5,5-Trimethyl: 96 hr LC50 Leuciscus idus 110 mg/L; 48 hr EC50 daphnia magna 23 mg/L; 72 hr EC50 Desmodesmus subspicatus 37 mg/L
Salicylic Acid: 48 hr EC50 daphnia magna 870 mg/L; 72 hr EC50 Desmodesmus subspicatus > 100 mg/L
Polymer of Epichlorohydrin-Polyglycol: 96 hr LC50 Leuciscus idus 67 mg/L; 48 hr EC50 daphnia magna 90 mg/L
1, 5 Pentanediamine, 2 Methyl: 96 hr LC50 Pimephales promelas 1825 mg/L (structurally similar chemical); 48 hr EC50 daphnia magna 50 mg/L(structurally similar chemical); 72 hr EC50 Pseudokirchnerella subcapitata > 100 mg/L (structurally similar chemical)
Triphenyl Phosphite: No data available
Benzene-1,3-Dimethanamine: No data available
Phenol: 96 hr LC50 Pimephales promelas 67.5 mg/L; 48 hr EC50 daphnia magna 3.1 mg/L; 72 hr EC50 Selenastrum capricornutum 61.1 mg/L
Diglycidyl Ether Bisphenol A Epoxy Resin: 96 hr LC50 Oryzias latipes > 15 mg/L; 48 hr EC50 daphnia magna > 100 mg/L; 72 hr EC50 Desmodesmus subspicatus > 100 mg/L
1,3-cyclohexanedimethanamine: 96 hr LC50 Leuciscus idus 130 mg/L; 48 hr EC50 daphnia magna 33.1 mg/L; 72 hr EC50 Pseudokirchnerella subcapitata 56.7 mg/L

Persistence and degradability: Benzyl alcohol, 1, 5 pentanediamine and phenol are readily biodegradable.
Bioaccumulative potential: Benzyl alcohol, 1, 5 pentanediamine, and salicylic acid has a BCF of <5.
Mobility in soil: Benzyl alcohol and phenol are highly mobility in soil. Salicylic Acid is moderately mobile is soil.
Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all local, state and federal regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	UN 2735	Amines, liquid, corrosive n.o.s. (1,3-cyclohexanedimethanamine, 1, 5 Pentanediamine, 2 Methyl)	8	PG II	None
TDG	UN 2735	Amines, liquid, corrosive n.o.s. (1,3-cyclohexanedimethanamine, 1, 5 Pentanediamine, 2 Methyl)	8	PG II	None
IMDG	UN 2735	Amines, liquid, corrosive	8	PG II	None

		n.o.s. (1,3-cyclohexanedimethanamine, 1, 5 Pentanediamine, 2 Methyl)			
IATA	UN 2735	Amines, liquid, corrosive n.o.s. (1,3-cyclohexanedimethanamine, 1, 5 Pentanediamine, 2 Methyl)	8	PG II	None

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

15. REGULATORY INFORMATION

CERCLA: This product has a Reportable Quantity (RQ) of 20,000 lbs. based on the RQ for Phenol of 1,000 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations

SARA Hazard Category (311/312): Acute Health, Chronic Health

SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Phenol	108-95-2	1-5%

California Proposition 65
This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity (birth defects): Epicholorhydrin 106-89-8 (cancer, male reproductive toxicity) <25 ppm

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

CANADA:
Canadian CEPA: All of the ingredients in this product are listed on the Canadian DSL.
Canadian WHMIS Classification: Class E (Corrosive), Class D Division 2 Subdivision A (Very Toxic Material Causing other Toxic Effects), Class D Division 2 Subdivision B (Toxic Material Causing other Toxic Effects)
This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

16. OTHER INFORMATION

NFPA Rating: Health = 3 Flammability = 1 Instability = 0
HMIS Rating: Health = 3 Flammability = 1 Physical Hazard = 0

SDS Revision History: Converted to GHS format. All sections revised.
Date of preparation: December 12, 2014

Date of last revision: New SDS

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, Dur-A-Flex, Inc. MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND USE.