

SECTION 1. IDENTIFICATION

GHS product identifier Durall 10 (Part B)
Other means of identification Not available
Product type Solid

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses 2-part epoxy

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SECTION 2. HAZARDS IDENTIFICATION

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture SKIN CORROSION - Category 1B
 SERIOUS EYE DAMAGE - Category 1
 SKIN SENSITIZATION - Category 1
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
 (Respiratory tract irritation) - Category 3
 AQUATIC HAZARD (LONG-TERM) - Category 3

GHS LABEL ELEMENTS

Hazard pictograms



Signal word Danger

Hazard statements H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H335 - May cause respiratory irritation
 H412 - Harmful to aquatic life with long lasting effects

Conforms to HCS 2012 - United States

SECTION 2. HAZARDS IDENTIFICATION CONTINUED

PRECAUTIONARY STATEMENTS

- Prevention** P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
 P271 - Use only outdoors or in a well-ventilated area.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing dust.
 P264 - Wash hands thoroughly after handling.
 P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
- Response** P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
 P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
 P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
 P333 + P313 - If skin irritation or rash occurs: Get medical attention.
 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 physician.
- Storage** P405 - Store locked up.
- Disposal** P501 - Dispose of contents and container in accordance with all local, regional, national, and international regulations.

Hazards not otherwise classified None known

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture Mixture

Other means of identification Not available

CAS NUMBER/OTHER IDENTIFIERS

CAS number Not applicable

Product code Not available

INGREDIENT NAME	%	CAS NUMBER
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	90 - 100	68953-36-6
3,6,9-Triazaundecamethylenediamine	1 - 5	112-57-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

**DESCRIPTION OF NECESSARY
FIRST AID MEASURES**

- Eye contact** Flush with plenty of water and get medical attention. Keep eye lids apart. Wash within 1 minute.
- Inhalation** In case of exposure to high concentration of vapor or mist, remove person to fresh air.
- Skin contact** Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention if symptoms occur.
- Ingestion** Wash out mouth with water. If material has been swallowed and the exposed 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. Get medical attention if symptoms occur.

**MOST IMPORTANT SYMPTOMS/EFFECTS,
ACUTE AND DELAYED**

Potential acute health effects

- Eye contact** Causes serious eye damage
- Inhalation** May cause respiratory irritation
- Skin contact** Causes severe burns; may cause an allergic skin reaction
- Ingestion** No known significant effects or critical hazards

Over-exposure signs/symptoms

- Eye contact** Adverse symptoms may include the following: pain, watering, redness
- Inhalation** Adverse symptoms may include the following: respiratory tract irritation, coughing
- Skin contact** Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
- Ingestion** Adverse symptoms may include the following: stomach pains

**INDICATION OF IMMEDIATE MEDICAL
ATTENTION AND SPECIAL TREATMENT
NEEDED, IF NECESSARY**

Notes to physician In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments No specific treatment

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11).

SECTION 5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Suitable extinguishing media In case of fire, use water spray (fog), foam, dry chemical, or CO₂.

Unsuitable extinguishing media None known

Specific hazards arising from the chemical May produce hazardous fumes or hazardous decomposition products.

Hazardous thermal decomposition products Carbon Monoxide, Carbon Dioxide, and Phenolics

Special protective actions for firefighters No special measures are required.

Special protective equipment for firefighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For non-emergency personnel No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in “For nonemergency personnel”.

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). Water polluting material. May be harmful to the environment if released in large quantities.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Spill Ensure adequate ventilation. Absorb with an inert material and place in an appropriate waste disposal container. Prevent entry into sewers, water courses, basements, or confined areas. Wear suitable protective clothing. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

Protective measures Put on appropriate personal protective equipment (see Section 8). 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 ingest. Avoid release to the environment. 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.

Advice on general occupational hygiene 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, and smoking. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities 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. Store locked up. 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS

Occupational exposure limits

INGREDIENT NAME	EXPOSURE LIMITS
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	None
3,6,9-Triazaundecamethylenediamine	AIHA WEEL (United States, 10/2011). Absorbed through skin. Skin sensitizer. TWA: 5 mg/m ³ 8 hours.

Appropriate engineering controls 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.

Environmental exposure controls Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

INDIVIDUAL PROTECTION MEASURES

Hygiene measures Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shields when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION CONTINUED**SKIN PROTECTION**

- Hand protection** Nitrile gloves when handling material
- Body protection** Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur.
- Other skin protection** Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved, and should be approved by a specialist before handling this product.
- Respiratory protection** Based on the hazard and potential for exposure select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE**

- Physical state** Solid [Paste]
- Color** Manila
- Odor** Aromatic
- Odor threshold** Not available
- pH** Not available
- Melting point** Not available
- Boiling point** >218.33°C (>425°F)
- Flash point** Closed cup: <93.333°C (<200°F) [Setaflash]
- Evaporation rate** >1 (Butyl acetate = 1)
- Flammability (solid, gas)** Not available
- Lower and upper explosive (flammable) limits** Not available
- Vapor pressure** Not available
- Vapor density** >1 [Air = 1]
- Relative density** 0.96
- Solubility** Insoluble in the following materials: cold water and hot water
- Partition coefficient: n-octanol/water** Not available
- Auto-ignition temperature** Not available
- Decomposition temperature** Not available
- Viscosity** Not available

SECTION 10. STABILITY AND REACTIVITY

- Reactivity** No specific test data related to reactivity available for this product or its ingredients
- Chemical stability** The product is stable.
- Possibility of hazardous reactions** Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** Heat and warm storage
- Incompatible materials** Strong oxidizers, epoxy resin, and amine mixtures especially when hot
- Hazardous decomposition products** Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
3,6,9-Triazaundecamethylenediamine	LD50 Oral	Rat	3990 mg/kg	-

Irritation/Corrosion

Product/ingredient name - 3,6,9-Triazaundecamethylenediamine

RESULT	SPECIES	SCORE	EXPOSURE	OBSERVATION
Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
Eyes - Moderate irritant	Rabbit	-	5 mg	-
Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
Skin - Severe irritant	Rabbit	-	495 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

There is no data available.

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure

Dermal contact, eye contact, inhalation, ingestion

SECTION 11. TOXICOLOGICAL INFORMATION CONTINUED

POTENTIAL ACUTE HEALTH EFFECTS

- Eye contact** Causes serious eye damage
- Inhalation** May cause respiratory irritation
- Skin contact** Causes severe burns; may cause an allergic skin reaction
- Ingestion** No known significant effects or critical hazards

SYMPTOMS RELATED TO THE PHYSICAL, CHEMICAL AND TOXICOLOGICAL CHARACTERISTICS

- Eye contact** Adverse symptoms may include the following: pain, watering, redness
- Inhalation** Adverse symptoms may include the following: respiratory tract irritation, coughing
- Skin contact** Adverse symptoms may include the following: pain or irritation, redness, blistering may occur
- Ingestion** Adverse symptoms may include the following: stomach pains

DELAYED AND IMMEDIATE EFFECTS AND ALSO CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURE

Short term exposure

- Potential immediate effects** No known significant effects or critical hazards.
- Potential delayed effects** No known significant effects or critical hazards.

Long term exposure

- Potential immediate effects** No known significant effects or critical hazards.
- Potential delayed effects** No known significant effects or critical hazards.

Potential chronic health effects

- General** Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** No known significant effects or critical hazards.
- Mutagenicity** No known significant effects or critical hazards.
- Teratogenicity** No known significant effects or critical hazards.
- Developmental effects** No known significant effects or critical hazards.
- Fertility effects** No known significant effects or critical hazards.

NUMERICAL MEASURES OF TOXICITY

Acute toxicity estimates

ROUTE	ATE VALUE
Oral	10500 mg/kg
Dermal	23100 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

- Toxicity** There is no data available.
- Persistence and degradability** There is no data available.
- Bioaccumulative potential** There is no data available.
- MOBILITY IN SOIL**
- Soil/water partition coefficient (K_{oc})** Not available
- Other adverse effects** No known significant effects or critical hazards

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions, and any by-products should comply with the requirements of environmental protection and waste disposal legislation, and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.

SECTION 14. TRANSPORT INFORMATION

	DOT	IMDG	IATA
UN Number	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Additional information	-	-	-

AERG : Not applicable

Special precautions for user Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15. REGULATORY INFORMATION

U.S. Federal regulations TSCA 8(a) CDR Exempt/Partial exemption: Not determined
 United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

DEA List I Chemicals (Precursor Chemicals) Not listed

DEA List II Chemicals (Essential Chemicals) Not listed

SARA 302/304

Composition/information on ingredients No products were found.

SARA 304 RQ Not applicable

SARA 311/312

Classification Immediate (acute) health hazard

Composition/information on ingredients

NAME	%	FIRE HAZARD	SUDDEN RELEASE OF PRESSURE	REACTIVE	IMMEDIATE (ACUTE) HEALTH HAZARD	DELAYED (CHRONIC) HEALTH HAZARD
Fatty Acids, Tall-oil, Reaction Products With Tetraethylenepentamine	≥90	No	No	No	Yes	No
3,6,9-Triazaundecamethylenediamine	≥5 - ≤10	No	No	No	Yes	No

SARA 313 There is no data available.

STATE REGULATIONS

Massachusetts The following components are listed: 3,6,9-Triazaundecamethylenediamine

New York None of the components are listed.

New Jersey The following components are listed: 3,6,9-Triazaundecamethylenediamine

Pennsylvania The following components are listed: 3,6,9-Triazaundecamethylenediamine

California Prop. 65 No products were found.

SECTION 16. OTHER INFORMATION

Procedure used to derive the classification	CLASSIFICATION	JUSTIFICATION
	SKIN CORROSION - Category 1B	Calculation method
	SERIOUS EYE DAMAGE - Category 1	Calculation method
	SKIN SENSITIZATION - Category 1	Calculation method
	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
	AQUATIC HAZARD (LONG-TERM) - Category 3	Calculation method

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.