


SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING



- 1.1 Product Identifier**
 GHS Product Identifier **DWH 310 FL Resin**
 Chemical Name **DWH 310 FL Resin**
 Trade Name **Not applicable**
 CAS No. **DWH 310 FL Resin**
 EINECS No. **Mixture**
 REACH Registration No. **Mixture**
 REACH Registration No. **Not available**
- 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**
 Identified Use(s) **Users are recommended to seek further advice.**
 Uses Advised Against **Users are recommended to seek further advice.**
- 1.3 Details of The Supplier of the Safety Data Sheet**
 Company Identification **Devitt Machinery Co., Inc.**
 Address **4009 Market St., Unit G, Aston, PA 19014 USA**
 Telephone **(610) 999-8872**
 E-Mail (Competent Person)
- 1.4 Emergency Telephone Number – ChemTel Inc.**
Emergency Phone No. (800) 255-3924 (USA/Canada), (813) 248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the Substance or Mixture**
2.1.1 Regulation (EC) No. 1272/2008 (CLP) - Acute Toxicity 1 (Oral, Dermal), Skin Irritation 2, Eye Irritant 2, Skin Sensitizer 1, Environment 2 (3.1/4, 3.2/2, 3.3/2, 3.4/1, 4.1/2)
2.1.2 Directive 67/548/EEC & Directive 1999/45/EC – Harmful, Dangerous to Environment
2.2 Label Elements
2.2.1 Label Elements According to Regulation (EC) No. 1272/2008 (CLP)
 GHS Product Identifier (EU)

Hazard Pictogram(s)		Signal Word(s)	Warning
			
Hazard Statement(s)	H302: Harmful if swallowed. H312: Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411: Toxic to aquatic life with long lasting effects. EUH205: Contains epoxy constituents. See information supplied by the manufacturer.		
Precautionary Statement(s)	P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. 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. P312 Call a POISON CENTER or doctor/ physician 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. P501 Dispose of contents/ container to an approved waste disposal plant.		

- 2.2.2 Label Elements According to Directive 67/548/EEC & Directive 1999/45/EC**

Hazard Symbol	 
Risk Phrases	R21/22: Harmful in contact with skin and if swallowed. R36/38: Irritating to eyes and skin. R43: May cause sensitization by skin contact. R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases S2: Keep out of the reach of children.
S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.
S29: Do not empty into drains.
S37/39: Wear suitable gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53: Avoid exposure - obtain special instructions before use.
S56: Dispose of this material and its container to hazardous or special waste collection point.

2.3 Other Hazards **GHS Classification (USA): Hazardous under OSHA Hazard Communication Standard –Warning- Corrosive (Eyes) Irritant (Skin), May be harmful if swallowed. Harmful by Skin absorption,; Skin sensitizer. HMIS: Health-2, Flammability-1, Reactivity – 0**



WHMIS Classification (Canada): Hazardous under WHMIS Class D2B, Toxic Material Causing Other Toxic Effects, Skin irritant, Eye irritant, Skin sensitiser.



2.4 Additional Information **None**

Potential Health Effects

Inhalation

Skin Contact

Eye Contact

Ingestion

Possible irritation of the respiratory tract.
May cause sensitization by skin contact.
Irritating to skin.
Causes serious eye irritation.
Harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

EC Classification No. 1272/2008/EC

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Hazard Statement(s)
1,4-bis(2,3 epoxypropoxy)butane	2.5-5	2425-79-8	219-371-7	NA	3.1/4, 3.2/2, 3.3/2A, 3.4/1, 4.1/3 ; H302, H312, H315, H317, H319, H332, H412.
Bisph Bisphenol A/F-Epoxy MW < 700	25-50	40216-08-8	Not referenced	NA	3.2/2, 3.3/2, 3.8/3, 4.1/2; H315, H319, H335

EC Classification No. 67/548/EEC

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Risk Phrases
1,4-bis(2,3 epoxypropoxy)butane	2.5-5	2425-79-8	219-371-7	NA	Xn: R21/22, R36/38, R43
Bisphenol A/F-Epoxy MW < 700	25-50	40216-08-8	Not referenced	NA	Xi, N: R36/38, R43, R51/53

3.3 Additional Information

- For full text of H phrases see section 16. For full text of R phrases see section 16. Non-Hazardous ingredients are not listed and make up the balance of the product.

SECTION 4: FIRST AID MEASURES**4.1 Description of First Aid Measures**

Inhalation	Remove patient from exposure, keep warm and at rest. Apply artificial respiration if breathing has ceased or shows signs of failing.
Skin Contact	Remove contaminated clothing immediately and wash affected skin with soap and water. Do not use solvents or diluting agents for skin cleaning.
Eye Contact	After initial flushing, remove any contact lenses and continue flushing. Get medical advice/attention.
Ingestion	If swallowed, rinse mouth with water (only if the person is conscious). Get medical advice/attention. Do not induce vomiting.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

Acute: Causes serious eye irritation, possible corneal burns. Causes skin irritation. May cause respiratory irritation. Ingestion may cause irritation of the gastrointestinal tract. May cause sensitization by skin contact.
Delayed and Chronic Effects: Generally similar to acute exposures, plus the following: May cause corneal damage. Discolors skin and mucous membranes.

4.3 Indication of The Immediate Medical Attention and Special Treatment Needed

Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Combustible but not readily ignited. Acrid smoke. Flash Point 392°F /200°C.

5.1 Extinguishing Media

Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or waterspray.
Unsuitable Extinguishing Media	Do not use strong water jet.

5.2 Special Hazards Arising From The Substance Or Mixture

Dense black smoke occurs during fire. Can melt and burn in a fire.
Decomposes in a fire giving off toxic fumes:

5.3 Advice For Fire-Fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Provide a respiratory protective device.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Keep away from sources of ignition. Work in well ventilated zones or use proper respiratory protection.

6.2 Environmental Precautions

Do not allow into any sewer on the ground, or into any body of water. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations. Ventilation recommended.

6.3 Methods and Material For Containment and Cleaning Up

Absorb spillages onto sand, earth or any suitable adsorbent material. May be disposed of by landfill in accordance with local regulations. Do not use solvents.

6.4 Reference To Other Sections

See Also Section 7, 8, 10, 13.

6.5 Additional Information

None

SECTION 7: HANDLING AND STORAGE**7.1 Precautions For Safe Handling**

Use only with adequate ventilation to keep exposures (airborne levels of dust, fume, vapour etc) below recommended exposure limits. Avoid inhalation of high concentrations of vapors. Keep away from fire, sparks and heated surfaces - no smoking. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Follow legal protection and safety regulations.

7.2 Conditions For Safe Storage, Including Any Incompatibilities

Protect from sunlight. Store in a well-ventilated place. Do not use or store near heat or open flame. Store in a closed container. Do not store and transport with oxidizers etc. No smoking.

Storage Temperature

Ambient.

Storage Life

Not available

Incompatible Materials

Oxidizing agents, strongly acidic and alkaline materials.

7.3 Specific End Use(s)

Consult the supplier.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

8.1.1 Occupational Exposure Limits

Substance	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note:
1,4-bis(2,3 epoxypropoxy)butane	2425-79-8	NE	NE	NE	NE	NA
Bisphenol A/F-Epoxy MW < 700	40216-08-8	NE	NE	NE	NE	NA

8.1.2 Biological Limit Value





Limit Value Type (Country Of Origin)	Substance	CAS No.	Biological Limit Value	Note:
USA	None	None	None	None

8.1.3 PNECs and DNELs

DNEL	Oral	Inhalation	Dermal
Industry - Long Term - Local effects	NA	NA	NA
Industry - Long Term - Systemic effects	NA	NA	NA
Industry - Short term - Local effects	NA	NA	NA
Industry - Short term - Systemic effects	NA	NA	NA
Professional - Long Term - Local effects	NA	NA	NA
Professional - Long Term - Systemic effects	NA	NA	NA
Professional - Short term - Local effects	NA	NA	NA
Professional - Short term - Systemic effects	NA	NA	NA
Consumer - Long Term - Local effects	NA	NA	NA
Consumer - Long Term - Systemic effects	NA	NA	NA
Consumer - Short term - Local effects	NA	NA	NA
Consumer - Short term - Systemic effects	NA	NA	NA

	PNEC
Aquatic Compartment	Not available
Terrestrial Compartment	Not available
Atmospheric Compartment	Not available

8.2.2 Personal Protection Equipment

	Respirators	Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.
	Eye Protection	Safety spectacles.
	Gloves	Wear protective gloves. The gloves type used must be chosen based on the work activity and duration as well as concentration/quantity of material being handled. Use skin barrier cream before handling the product.
	Body Protection	Wear suitable protective clothing and gloves. Anti-static clothing and shoes are recommended.
	Engineering Controls	Use adequate ventilation and/or engineering controls in high temperature processing to prevent exposure to vapours.
	Other	Remove contaminated, saturated clothing immediately. Contaminated clothing should be thoroughly cleaned. After contact with skin, wash immediately with plenty of soap and water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information On Basic Physical And Chemical Properties**

Appearance	Liquid.	Color	Not available
Odor	Characteristic	Odor Threshold (ppm)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available	Boiling Point/Boiling Range (°C)	Not available
Flash Point (°C)	392°F /200°C	Explosive Limit Ranges	Not available
Auto Ignition Temperature (°C)	Not available	Decomposition Temperature (°C)	Not available
Explosive Properties	Not available	Oxidizing Properties	Not available
Flammability (Solid, Gas)	Not available	pH (Value)	Not available
Evaporation Rate	Not available	Vapor Pressure (mm Hg)	2,413 g/cm ³ at 20°C
Vapor Density (Air=1)	Not available	Density (g/ml)	Not available
Solubility (Water)	Insoluble in water.	Solubility (Other)	Insoluble
Partition Coefficient (n-Octanol/water)	Not available	Viscosity (mPa.s)	18000 mPa.s

9.2 Other Information Volatile Organic Chemical (VOC) Content – Not available.**SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity	Slight
10.2 Chemical Stability	Stable under normal conditions.
10.3 Possibility Of Hazardous Reactions	Can react violently if in contact with - Oxidizing agents, Acids, Alkalis.
10.4 Conditions To Avoid	Avoid contact with heat and ignition sources.
10.5 Incompatible Materials	Oxidizing agents, Acids, Alkalis.
10.6 Hazardous Decomposition Product(s)	Carbon monoxide, Carbon dioxide, Nitrogen oxides and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

SUBSTANCE.	CAS No.	LD ₅₀ (Oral, Rat)	LC ₅₀ (Inhalation, Rat)	LD50 (Dermal, Rat)
1,4-bis(2,3 epoxypropoxy)butane	2425-79-8	1134 mg/kg	Not established	1130 mg/kg (Rabbit)
Bisphenol A/F-Epoxy MW < 700	40216-08-8	Not established	Not established	Not established

11.1 Information On Toxicological Effects**11.1.2 Mixtures**

Acute Toxicity	Headache, dizziness, fatigue, amyosthenia and in serious cases unconsciousness.
Irritation	Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation.
Corrosivity	No data
Sensitisation	May cause allergic skin reaction.
Repeated Dose Toxicity	Expected to be similar to single exposures.
Carcinogenicity	No data on complete product.
Mutagenicity	No data.
Toxicity For Reproduction	No data.

11.2 Other Information None**SECTION 12: ECOLOGICAL INFORMATION**

12.1 Toxicity	Moderately toxic.
12.2 Persistence and Degradability	No data
12.3 Bioaccumulative Potential	Moderately/partially biodegradable.
12.4 Mobility In Soil	The product has high mobility in soil.
12.5 Results Of PBT and vPvB Assessment	No data
12.6 Other Adverse Effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods Do not allow into any sewer on the ground, or into any body of water. Disposal sh be in accordance with local, state or national legislation. Containers must not be punctured or destroyed by burning, even when empty.

13.2 Additional Information None

SECTION 14: TRANSPORT INFORMATION**Land Transport (ADR/RID) (c)(d)**

UN Number UN 3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Transport Hazard Class(es) 9
Packing Group III
Hazard Label(s) 9
Environmentally hazardous substance
Environmental Hazards Aquatic Toxin
None

Special Precautions For User

Sea Transport (IMDG) (c)(d)

UN Number UN 3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Transport Hazard class(es) 9
Packing Group III
Marine Pollutant p
Special Precautions For User None

Land Transport (Within USA) (c)(d)

UN Number None
Proper Shipping Name Not classified as dangerous for transport.
Transport Hazard Class(es) None
Packing Group None
Hazard Label(s) None
None

Environmental Hazards Aquatic toxin
Special Precautions For User None

Air Transport (ICAO/IATA) (c) (d)

UN Number UN 3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Transport Hazard class(es) 9
Packing Group III
Environmental Hazards Environmentally hazardous substance
Special Precautions For User None

(c)– Consult with transport provider.

(d)– Check relevant regulations for Special Provisions.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION**15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture****15.1.1 EU Regulations**

Authorisations And/Or Restrictions On Use Consult the supplier.
European Union (EINECS/ELINCS) All chemicals listed or polymer exempt.
German WGK Number 1

15.1.2 National Regulations**USA**

TSCA (Toxic Substance Control Act) All chemicals listed.
SARA 311/312 - Hazard Categories Acute Health
SARA 302 - Extremely Hazardous Substances Listed - None
SARA 313 - Toxic Chemicals Contains: None
CERCLA (Comprehensive Environmental Response Compensation and Liability Act) Listed - None

CAA (Clean Air Act 1990)
CWA (Clean Water Act)
State Right to Know Lists

Listed - None
Listed - None
Listed.- CAS# 2425-79-8- CA,,FL,MA, MN,NJ,
PA, RI .

Proposition 65 (California) This product contains the following substance(s) in trace concentrations <0.01% known to the state of California to cause cancer and/or reproductive harm; Epichlorohydrin, Formaldehyde.

Canada

WHMIS Classification

Class D2B, Toxic Material Causing Other Toxic Effects Moderate skin irritant, Moderate eye irritant, Skin sensitiser

Canada (DSL/NDSL)

Listed. - DSL

Canada Ingredient Disclosure List (CIDL)

Listed as required.

15.2 Chemical Safety Assessment

Corrosive / Irritant (Skin, Eye), Skin Sensitizer

15.3 Label Elements (EU)

Label as Harmful under GHS, 1999/45/EEC, 1907/2006/EC, and 1272/2008/EC. See Section 2 for full label requirements.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

LEGEND

ACGIH	American Conference Of Governmental Industrial Hygienists	NA	Not Applicable, Not Available
AICS	Australian Inventory Of Chemical Substances	NIOSH	National Institute For Occupational Safety And Health
ANSI	American National Standards Institute	ND	Not Determined
atm	Atmosphere (Pressure Unit)	NFPA	National Fire Prevention Association
BOD	Biological Oxygen Demand	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OC	Open Cup
CC	Closed Cup	OSHA	Occupational Safety And Health Administration
CDTA	Chemical Drug And Trafficking Act	Part	Partition
COC	Cleveland Open Cup	PEL	Permissible Exposure Limits
COD	Chemical Oxygen Demand	ppb	Parts Per Billion
coeff.	Coefficient	PPE	Personal Protective Equipment
CFR	Code Of Federal Regulations	ppm	Parts Per Million
CPR	Cardio-Pulmonary Resuscitation	psi	Pounds Per Square Inch
DEA	Drug Enforcement Agency	RCRA	Resource Conservation And Recovery Act
DOT	Department Of Transportation	RQ	Reportable Quantity
DSCL	Dangerous Substances Classification And Labeling	RTK	Right To Know
EEC	European Economic Community	SARA	Superfund Amendments And Reauthorization Act
FDA	Food And Drug Administration	STEL	Short-Term Exposure Limit
HMIS	Hazardous Materials Information System	SUSDP	Standard For The Uniform Scheduling Of Drugs And Poisons (Australia)
IARC	International Agency For Research On Cancer	TCC	Tagliabue Closed Cup
IDLH	Immediate Danger To Life Or Health	TDG	Transportation Of Dangerous Goods
kg	Kilogram	TPQ	Threshold Planning Quantity
L	Liter	TQ	Threshold Quantity
LC ₅₀	Median Lethal Concentration	TSCA	Toxic Substances Control Act
LD ₅₀	Median Lethal Dose	TWA	Time-Weighted Average
LEL	Lower Explosive Limit	UEL	Upper Explosive Limit
mg	Milligram	WES	Workplace Exposure Standard (New Zealand)
mL	Milliliter	WHMIS	Workplace Hazardous Material Information System

References: RTECS, CAS Registry, EINECS/ESIS, *Casarett & Doull's Toxicology*, *Goldfrank's Toxicological Emergencies*, Manufacturer Information

Risk Phrases and Safety Phrases

R20/21 Harmful by inhalation and in contact with skin.
R36/38: Irritating to eyes and skin.
R43: May cause sensitization by skin contact.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S2: Keep out of the reach of children.
S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.
S29: Do not empty into drains.
S37/39: Wear suitable gloves and eye/face protection.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53: Avoid exposure - obtain special instructions before use.
S56: Dispose of this material and its container to hazardous or special waste collection point.

Hazard Statement(s) and Precautionary Statement(s)

H302 + H312 Harmful if swallowed or in contact with skin.
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.
H412 Harmful to aquatic life with long lasting effects.
EUH205: Contains epoxy constituents. See information supplied by the manufacturer.
P102: Keep out of reach of children.
P202: Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P263: Avoid contact during pregnancy/while nursing.
P264 Wash skin 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/ eye protection/ face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
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.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P322 Specific measures (see supplemental first aid instructions on this label).
P330 Rinse mouth.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

Training Advice: None

Additional Information: None

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. ChemTel Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. ChemTel Inc. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.