CHEM100™

REGULAR SETTING EPOXY COATING

DCC Master Format™ 09 67 00

COMMERCIAL INDUSTRIAL INSTITUTIONAL RESIDENTIAL

PRODUCT DESCRIPTION

CHEM100™ is a two-component epoxy coating containing 100% solids (solvent-free), no VOCs and virtually odorless materials. The product has excellent resistance to UV rays and the tendency to yellowing over time is one of the slowest in the industry. In addition, **CHEM100™** has superior mechanical and chemical properties, making it an ideal choice for residential and commercial applications. The product provides a very long working time and pot life, which facilitates its application. It was formulated to be used as a topcoat but can also be used as a basecoat. The **CHEM100™** is self-prime thus, no need for an additional primer. The formulation of **CHEM100™** is based on the most recent technological advances in cycloaliphatic polyamines providing excellent properties and an impeccable aesthetic finish.

ADVANTAGES:

- ☑ Essentially odorless
- ☑ VOC Compliant
- ☑ High Sheen
- ☑ Potential for LEED eligibility
- ☑ Self-Priming
- ☑ High Color stability
- ☑ Chemical resistance
- ☑ Seamless Coating
- ☑ Withstands average traffic at a minimum thickness of 8Mils
- ☑ System offering the best UV resistance in the industry
- ☑ Environmentally friendly, 100% solids, VOC and solvent free
- ☑ Ease of application with long pot life and long working time
- ☑ Excellent elongation and abrasion resistance
- ☑ High resistance to the phenomenon of rising amine and contaminants (fish eyes).
- ☑ Superior mechanical and chemical properties
- ☑ Impermeability / Mold resistant
- ☑ High density of the product preventing the penetration of dirt and facilitating maintenance

APPLICATIONS

- Pharmaceuticals
- Garage floors
- Kitchens
- Corridors
- Showrooms
- Laboratories
- Commercial Centers
- Office buildings
- Food processing
- Washrooms & Showers
- Manufactures/Fabrication
- White Rooms
- Schools
- Hospitals
- Retail Stores
- Warehouses

COLORS

CHEM100™ is available in several standard colors, custom colors, liquid pigments, metallic pigments, and clear. (See the CHEMTEC ™ color chart)

By diffusing colored flakes, colored quartz or silica sand, endless combinations of colors and textures can be created.
(* additional charges may apply)

Available colors:

- Standard Colors
- Metallic Pigments
- Red Tile*
- Blue Security*
- Green Security *
- Liquid Pigments
- Red Security*
- Yellow Security*

PACKAGING

The **CHEM100™** kit consists of Resin Part A and Part B Hardener.

	Part A	Part B
Unit of 1 gallon	Pre-Mesured	Pre-Mesured
3 Gallon Kit	2 Gallons	1 Gallon
15 Gallon Kit	10 Gallons	5 Gallons
Barrel Kit	104 Gallons	52 Gallons

TESTING

All surfaces are not the same. It is recommended to create a sample area before starting the project. The test should be performed on site, using the method offered by your CHEMTEC representative to ensure good adhesion and color. A sampling area should also be performed on existing coatings to determine if there are any contaminants or if delamination will occur.

PHYSICAL PROPERTIES

PROPERTIES	VALUES	REFERENCES
Compressive Strength	14,000 psi – 96MPa	ASTM C 579
Flexural Strength:	3,700 psi – 25.5MPa	ASTM D 790
Tensile Strength:	3,900 psi – 26.9MPa	ASTM D 638
Bond Strength (concrete):	350psi – (2.4) Concrete fails at this point	ASTM D 4541
Taber Abrasion:	75-80 Mgs	ASTM D 4060
Flammability	Self-extinguisher	ASTM D 635
Hardness (Shore D): Water Absorption:	85 < 0.1% < 0.1%	ASTM D 2240 ASTM D 570 MIL D 3134
Impact Resistance	No chipping, cracking, or delaminating	ASTM D 2240
Flash Point:	>200°F - >93°C	
Abrasion Resistance (CS-17 Wheel, 1,000 g load, 1,000 cycles)	0.150 mg loss	ASTM D 4060

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PRODUCT DATA

Volumetric Ratio:	2:1
Solids Content:	100%
*Coverage:	75 - 600 P.C.
Application Temperature:	65-90°F (18-32°C)
Min Substrate Temperature:	50ºF (10ºC)
Max Substrate Temperature:	86ºF (30ºC)
Thinner:	Not required
Pot Life @ 21ºC:	15-20 minutes
**Drying / Curing Time :	
Working Time:	35 minutes
Tack Free:	12 hours
Pedestrian:	24 hours
Traffic:	48 hours
Curing Time @ 21ºC for resurfacing:	24 hours
Shelf Life:	12 months
USDA Food & Beverage & CFIA:	Meets the requirements

*Coverage will differ depending on the quality, porosity, of the substrate, thickness, and application methods.

**Based at 71°F (22°C) & 55% relative humidity

CHEMICAL RESISTANCE

REAGENT	RESULTS
ASTM 1308, Covered 7 days.	
Detergent solution (5% Ajax)	Unaltered
Sodium Chloride 20%,	Unaltered
Calcium Chloride 20%	Unaltered
Ammonia 20%	Unaltered
Trisodium phosphate 20%	Unaltered
Caustic Soda 20%	Unaltered
Javex 3%	Unaltered
Mineral spirits	Unaltered
Methanol	Unaltered
Toluene	Unaltered
Xylene	Unaltered
Hydrochloric acid 10%	Unaltered
Citric acid 10%	Unaltered
Lactic acid 5%	Unaltered
Unleaded petrol	Unaltered
Coffee	Unaltered
Tea	Unaltered
Beer	Unaltered
Skydrol	Unaltered
Nitric acid 10%	Some yellowing
Sulfuric acid 10%	Slightly discolored

PREPARATION OF CONCRETE

Before applying the coating, the concrete must be:

- ☑ Dry – No wet zones (<4%)
- ☑ Clean – Eliminate all contaminants, dust, grease, coatings, delaminated coatings, laitance, or any other contaminants that may affect and/or decrease or prevent a good adhesion.
- ☑ Profiled – Machanically profilled surface at a CSP2-6
- ☑ Sound – All cracks and shelled areas must be repaired.
- ☑ Concrete preparation must be done by mechanical means, or any other method approved by CHEMTEC™

Mechanical preparation is the preferred method of preparing concrete for coating application. Shot-blasting, diamond grinding, scarifying and scabbling are all acceptable methods. Contact your CHEMTEC™ Representative for suitable preparation method.

PATCHING & REPAIRS

Cavities, cracks, joints, and imperfections will be visible in the coating if the concrete is not repaired properly. Level and fill the concrete cavities with **CHEM-FILLER™** or **CHEM-FILLER FC™**. Once the material is cured, correct any imperfections by diamond sanding. If a repair material other than **CHEMTEC™** is used, contact a **CHEMTEC™** technical representative for approval of a compatible alternative.

MIXING

The ratio **CHEM100™** is 2 to 1. That is, two parts A (resin) to one part B (hardener). Generally, three mixed gallons of **CHEM100™** at a time is ideal for application. Mix the following with a drill and mixing paddle. Note: If using a drill mixer, use a low speed (not to exceed 300 rpm) to prevent air entrapment.

1. Add 1 gallon of CHEM100™ Part B into the premixed 2 gallons of Part A and mix for another 3 minutes.

2. CHEM100™ is designed to be immediately poured on the floor. Leaving mixed product in the container will greatly reduce working time. Once poured out on the floor, 20-30 minutes of working time can generally be expected.

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APPLICATION INSTRUCTIONS

Application of CHEM100™ for a solid color coat system is applied in two coats or in one pass as a topcoat over CHEM100™. For estimation purposes, use 150-200 SF per gallon in either case.

1. Always apply in descending temperatures. Concrete is porous and traps air. In ascending temperatures (generally mornings) the air expands and can cause out gassing in the coating. It is safer to apply coatings in the late afternoon, especially for exterior applications.
2. Optimum ambient temperature should be between 65-90°F during application.
3. Mix three gallons of resin using above mixing instructions.
4. Apply approximately 150-200 SF per gallon by immediately pouring out on surface in a ribbon, while walking and pouring at the same time until bucket is empty.
5. Using a squeegee on a pole, pull **CHEM100™** over substrate. As a first coat over bare concrete, pull resin as thin as possible while still wetting out concrete and uniformly covering surface. This allows trapped air to escape more easily. To apply in a single coat over a **CHEM100™**, pull at about 150-200 SF per gallon.
6. Using a 10MM non-shedding roller, roll coating forwards and backwards.
7. Lastly, back roll in the opposite direction as step 6.8. Apply second coat by repeating steps 1-7 the next day.
8. Sweep floor and sand any high spots or defects.
9. Apply Top-Coat at approximately 150 S/F per gallon. Use the same procedure as in Step 4, but without broadcasting.
10. For a 100-125 mil double broadcast system, repeat above steps.

*If additional chemical and abrasion protection is required, contact your CHEMTEC representative for recommendations.

Chip/Silica Sand Broadcast Instructions

1. Chip Broadcast: After Following Steps 1-4 from Quartz broadcast, Next Broadcast Color Chips/Micro Chips (150-200 SF per 25 lb. box) by tossing them into the air and allowing them to gently rain down into the wet resin.
2. For a random broadcast, use 1 lb. of chips per 100 S/F.
3. Allow to cure. Then scrape the basecoat with a drywall scraper in all directions. Or lightly sand chips using a floor maintainer machine. (sanding will result in smoother finish) Vacuum small pieces and dust well. (Not vacuuming well enough can cause coating to not bond correctly.)
4. Silica Sand Broadcast: Following Step 6 above, gently throw the silica sand up into the air, allowing it to fall without lumping in one spot or moving the resin. Do this until the floor is totally saturated with the silica sand and the resin will not accept any more. This generally requires 1/2 to 3/4 lbs. per S/F. Allow to dry for 4-6 hours.
5. Sweep floor and sand any high spots.
6. Following either method, apply final topcoat **CHEM100™** SERIES, **CHEM1000™** & **CHEM1000 WT™** Polyaspartic, or **CHEM UP™** Polyurethane Coatings.

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PRODUCT LIMITATIONS

Concrete slabs at ground level emit invisible moisture vapor. The permissible moisture emissions for concrete are 3 lb. / 1000 CP over 24 hours (<4%) based on calcium chloride test. In addition, a relative humidity (RH) test can be performed to test for moisture vapor. Relative humidity test results should be less than 85% per ASTM F2170. If humidity is above this level, blistering and delamination of the coating may occur. A calcium chloride or relative humidity test should be performed to determine the moisture levels of the concrete. If humidity levels exceed 85% for RH test or 3 lbs. for calcium chloride, a concrete moisture vapor control system should be used before applying the coating system.

CHEM-PROOF™ System is the recommended system for humidity above acceptable levels. The **CHEM-PROOF™** vapor barrier system Passes the F3010 specification based on E96 test results. Please contact your **CHEMTEC™** representative for details.

Coating systems are susceptible to cracking if the concrete moves or separates under the coating. Therefore, the treatment of joints and cracks should be reviewed prior to coating application. As a general rule, control joints (saw cuts) and random cracks should first be sawn or chiseled and then filled with **CHEM-FILLER™** or **CHEM-FILLER FC™.** Construction / cold joints (two slabs that meet and therefore move) must be treated. After the coating has been applied and cured, saw off the coating over the construction joints and apply elastomeric caulk.

WARRANTY

CHEMTEC™ coatings products are guaranteed for one year from the date of application. Please refer to the CHEMTEC™ COATINGS Limited Warranty for additional information.

SAFETY DISCLAIMER

Avoid contact with the skin. Some people may be allergic to the resin. Protective gloves, adequate ventilation and protective eyewear and protective clothing are recommended.

For more details, consult the CHEM-100™ "Material Safety Data Sheet".

– KEEP OUT OF REACH OF CHILDREN –

- FOR INDUSTRIAL USE ONLY -

The information presented herein are believed to be accurate and reliable but are presented without guaranties or responsibility on the part of CHEMTEC COATINGS™. It is the responsibility of the end user to verify and validate this information and the suitability of this product in their own systems. CHEMTEC COATINGS™. decline all responsibility for the use of this product in any systems.

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SAFETY DATA SHEET (SDS)

Section 1. Identification

Product identifier	CHEM 100 A
Other means of identification	CHEM 100; CHEM 100 PART A
Recommended use and restrictions on use	Floor Coating
Initial supplier identifier	CHEMTEC; 4117 Industriel; Laval; Quebec; Canada; H7L 6B9 info@epoxychemtec.com T 450-629-1717
Emergency telephone number/restriction on use	Canada – CANUTEC 24 hour number 613-996-6666

Section 2. Hazard identification

Classification of hazardous product (name of the category or subcategory of the hazard class)

Skin irritation (Category 2)
Sensitization – Skin (Category 1)
Eye irritation (Category 2A)
Hazardous to the aquatic environment – Acute & Chronic (Category 2)

Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)

Warning
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.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands/nails/face thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN, Wash with plenty of water for several minutes. P333 + P313 IF SKIN irritation or rash occurs: Get medical attention. P362+P364 Take off contaminated clothing and wash it before reuse. P305 + P351 + P338 IF IN EYES, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical attention. P273 Avoid release to the environment. P391 Collect spillage. P501 Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Other hazards known	None

Section 3. Composition/information on ingredients

Chemical name (common name/synonyms)	CAS number or other	Concentration (%)
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin	25085-99-8	60-100
Alkyl glycidyl ether	68609-97-2	< 10
Benzyl alcohol	100-51-6	< 10

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) considered trade secret(s).

Section 4. First-aid measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
Ingestion	IF SWALLOWED: Immediately call a doctor. DO NOT INDUCE VOMITING. NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
Skin contact	IF ON SKIN: wash with plenty of water. (15-20 minutes) IF SKIN irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
Eye contact	IF IN EYES, Rinse cautiously with water for several minutes (15-20). Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Most important symptoms and effects (acute or delayed)	Causes skin irritation.
Indication of immediate medical attention/special treatment	In all cases, call a doctor. Do not forget this document.

Section 5. Fire-fighting measures

Specific hazards of the hazardous product (hazardous combustion products)

Carbon oxides and other irritant/toxic gases and fumes.

Suitable and unsuitable extinguishing media

In case of fire: Use carbon dioxide, chemical powder agent and appropriate foam to extinguish surrounding products.

Special protective equipment and precautions for fire-fighters

During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).

Methods and materials for containment and cleaning up

Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Section 7. Handling and storage

Precautions for safe handling

Wear gloves/protective clothing/eye protection/face protection.
Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers for leaks before handling. Label containers appropriately. Ensure proper ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.

Section 8. Exposure controls/Personal protection

Control parameters (biological limit values or exposure limit values and source of those values)

Exposure limits: Dust – PEL-TWA 15 mg/m^3 (total dust) & 5 mg/m^3 (respirable fraction);

Appropriate engineering controls

Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Individual protection measures/personal protective equipment

Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. Chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact, must be worn during all handling operations. Wear protective chemical splash goggles to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.

Section 9. Physical and chemical properties

Appearance, physical state/colour	Liquid	**Vapour pressure**	Not available
Odour	Characteristic	**Vapour density**	Not available
Odour threshold	Not available	**Relative density**	1.12
pH	Not available	**Solubility**	Insoluble
Melting/freezing point	Not available	**Partition coefficient - n-octanol/water**	Not available
Initial boiling point/range	Not available	**Auto-ignition temperature**	Not available
Flash point	> 93°C	**Decomposition temperature**	Not available
Evaporation rate	Not available	**Viscosity**	Not available
Flammability (solids and gases)	Not available	**VOC**	Not available
Upper and lower flammability/explosive limits	Not available	**Other**	None known

Section 10. Stability and reactivity

Reactivity

Does not react under the recommended storage and handling conditions prescribed.

Chemical stability

Stable under the recommended storage and handling conditions prescribed.

Possibility of hazardous reactions

None known

Conditions to avoid (static discharge, shock or vibration)

None known

Incompatible materials

Oxidizing materials; etc.

Hazardous decomposition products

None known

Section 11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Skin irritation, redness, stinging, pain; Eye irritation, redness, tearing;

Delayed and immediate effects (chronic effects from short-term and long-term exposure)

Skin Sensitization – Possible; Respiratory Sensitization – No data available; Germ Cell Mutagenicity – No data available; Carcinogenicity – No ingredient listed by IARC, ACGIH, NTP or OSHA; Reproductive Toxicity – No data available; Specific Target Organ Toxicity — Single Exposure – No data available; Specific Target Organ Toxicity — Repeated Exposure – No data available; Aspiration Hazard – No data available; Health Hazards Not Otherwise Classified – No data available.

Numerical measures of toxicity (ATE; LD_{50} & LC_{50})

CAS 100-51-6 LD_{50}, Oral - Rat 1360 mg/kg;
ATE not available in this document.

Section 12. Ecological information

Ecotoxicity (aquatic and terrestrial information)	No data available for the product
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Section 13. Disposal considerations

Information on safe handling for disposal/methods of disposal/contaminated packaging

Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Section 14. Transport information

UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations

NOT REGULATED

UN number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime)

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epichlorhydrin); Class 9; PG III;

UN number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air)

UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epichlorhydrin); Class 9; PG III;

Special precautions (transport/conveyance)	May also be shipped as a LIMITED QUANTITY in accordance with TDG.
Environmental hazards (IMDG or other)	MARINE POLLUTANT
Bulk transport (usually more than 450 L in capacity)	Possible

Section 15. Regulatory information

Safety/health Canadian regulations specifics	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
Environmental Canadian regulations specifics	Refer to Section 3 for ingredient(s) of the DSL

Safety/health/environmental outside regulations specifics

United States OSHA information: This product is regulated according to OSHA (29 CFR).
United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14.
United States TCSA information: Refer to the ingredients listed in Section 3.

Section 16. Other information	
Date of the latest revision of the safety data sheet	March 05, 2021 version 3 (NSS ENTREPRISE INC.)
Corrections	Complete review
References	Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.
Abbreviations	
ACGIH	American Conference of Governmental Industrial Hygienists
ATE	Acute toxicity estimate
CAS	Chemical Abstract Service
DSL	Domestic Substance List
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal concentration
LD	Lethal Dosage
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.A.)
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
STEL	Short-term Exposure Limit
TDG	Transport of dangerous goods in Canada
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System

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.

SAFETY DATA SHEET (SDS)

Section 1. Identification

Product identifier	CHEM 100 B
Other means of identification	CHEM 100; CHEM 100 PART B
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Emergency telephone number/restriction on use	Canada – CANUTEC 24 hour number 613-996-6666

Section 2. Hazard identification

Classification of hazardous product (name of the category or subcategory of the hazard class)

Acute toxicity oral (Category 4)
Skin corrosion (Category 1)
Serious eye damage (Category 1)
Skin sensitization (Category 1)
Specific target organ toxicity – Single exposure (Category 3)
Reproductive toxicity (Category 1)
Hazardous to the aquatic environment – Acute & Chronic (Category 1)

Information elements (symbols, signal words, hazard statements and precautionary statements of the category/subcategory)

Danger
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H360 May damage fertility or the unborn child.
H362 May cause harm to breast-fed children.
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects.
P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dusts or mists. P263 Avoid contact during pregnancy and while nursing. P264 Wash hands/nails/face 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. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P312 Call a doctor if you feel unwell. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P363 Wash contaminated clothing before reuse. P332 + P313 IF SKIN irritation or rash occurs: Get medical attention. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a doctor. P308 + P313 IF exposed or concerned: Get medical attention. P391 Collect spillage. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Other hazards known	None

Section 3. Composition/information on ingredients

Chemical name (common name/synonyms)	CAS number or other	Concentration (%)
Epoxy adduct	---	10-30
Benzyl alcohol	100-51-6	< 10
Isophorone diamine	2855-13-2	10-30
Nonylphenol	84852-15-3	10-30
Polyoxypropylene diamine	9046-10-0	30-60

* Statement - This safety data sheet provides concentration range(s) instead of the actual concentration(s) considered trade secret(s).

Section 4. First-aid measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
Ingestion	IF SWALLOWED: Immediately call a doctor. DO NOT INDUCE VOMITING. NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Rinse mouth thoroughly with water. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.
Skin contact	IF ON SKIN: wash with plenty of water. (15-20 minutes) IF SKIN irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
Eye contact	IF IN EYES, Rinse cautiously with water for several minutes (15-20). Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Most important symptoms and effects (acute or delayed)	Causes severe skin burns and eye damage.
Indication of immediate medical attention/special treatment	In all cases, call a doctor. Do not forget this document.

Section 5. Fire-fighting measures

Specific hazards of the hazardous product (hazardous combustion products)

Carbon oxides and other irritant/toxic gases and fumes.

Suitable and unsuitable extinguishing media

In case of fire: Use carbon dioxide, chemical powder agent and appropriate foam to extinguish surrounding products.

Special protective equipment and precautions for fire-fighters

During a fire, irritating/toxic smoke and fumes may be generated. Do not enter fire area without proper protection. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece. Shield personnel to protect from venting, rupturing or bursting cans. Move containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and cans exposed to heat and flame.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment (See Section 8).

Methods and materials for containment and cleaning up

Ventilate area of release. Stop the leak if it can be done safely. Contain and absorb any spilled liquid concentrate with inert absorbent material, then place material into a container for later disposal (see Section 13). Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

Section 7. Handling and storage

Precautions for safe handling

Wear gloves/protective clothing/eye protection/face protection.
Before handling, it is very important that engineering controls are operating, and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Inspect containers for leaks before handling. Label containers appropriately. Ensure proper ventilation. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Avoid generating high concentrations of dusts, vapours or mists. Keep away from incompatible materials (Section 10). Keep containers closed when not in use. Empty containers are always dangerous. Refer also to Section 8.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up. Store away from incompatible materials (Section 10). Inspect all incoming containers to make sure they are properly labelled and not damaged. Storage area should be clearly identified, clear of obstruction and accessible only to trained personnel. Inspect periodically for damage or leaks.

Section 8. Exposure controls/Personal protection

Control parameters (biological limit values or exposure limit values and source of those values)

Exposure limits: Dust – PEL-TWA 15 mg/m^3 (total dust) & 5 mg/m^3 (respirable fraction);

Appropriate engineering controls

Use under well-ventilated conditions. Local exhaust ventilation system is recommended to maintain concentrations of contaminants below exposure limits. Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Individual protection measures/personal protective equipment

Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirators if the exposure limits are unknown. Chemically protective gloves (impervious), and other protective clothing to prevent prolonged or repeated skin contact, must be worn during all handling operations. Wear protective chemical splash goggles to prevent mists from entering the eyes. Wash hands/nails/face thoroughly after handling. Do not eat, drink or smoke when using this product. Practice good personal hygiene after using this material. Remove and wash contaminated work clothing before re-use.

Section 9. Physical and chemical properties

Appearance, physical state/colour	Liquid, clear	**Vapour pressure**	Not available
Odour	Characteristic	**Vapour density**	Not available
Odour threshold	Not available	**Relative density**	0.955
pH	Not available	**Solubility**	Not available
Melting/freezing point	Not available	**Partition coefficient - n-octanol/water**	Not available
Initial boiling point/range	Not available	**Auto-ignition temperature**	Not available
Flash point	> 93°C	**Decomposition temperature**	Not available
Evaporation rate	Not available	**Viscosity**	Not available
Flammability (solids and gases)	Not available	**VOC**	Not available
Upper and lower flammability/explosive limits	Not available	**Other**	None known

Section 10. Stability and reactivity

Reactivity

Does not react under the recommended storage and handling conditions prescribed.

Chemical stability

Stable under the recommended storage and handling conditions prescribed.

Possibility of hazardous reactions

None known

Conditions to avoid (static discharge, shock or vibration)

None known

Incompatible materials

Oxidizing materials; Acids; etc.

Hazardous decomposition products

None known

Section 11. Toxicological information

Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact)

Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May damage fertility or the unborn child. May cause harm to breast-fed children.

Symptoms related to the physical, chemical and toxicological characteristics

Skin burn, redness, stinging, pain; Eye burn, redness, tearing; Digestive tract burn; Respiratory tract burn, coughing, shortness of breath, dizziness, drowsiness, nausea and headaches.

Delayed and immediate effects (chronic effects from short-term and long-term exposure)

Skin Sensitization – Possible; Respiratory Sensitization – No data available; Germ Cell Mutagenicity – No data available; Carcinogenicity – No ingredient listed by IARC, ACGIH, NTP or OSHA; Reproductive Toxicity – Possible; Specific Target Organ Toxicity — Single Exposure – Possible; Specific Target Organ Toxicity — Repeated Exposure – No data available; Aspiration Hazard – No data available; Health Hazards Not Otherwise Classified – No data available.

Numerical measures of toxicity (ATE; LD_{50} & LC_{50})

CAS 9046-10-0 LD_{50}, Oral- Rat - 2885.3 mg/kg; LC_{50}, Inhalation - Rat - 8h > 0.74 mg/l; LD_{50}, Dermal- Rabbit - 2980 mg/kg; CAS 2855-13-2 LD_{50}, Oral - Rat 1030 mg/kg; CAS 84852-15-3 LD_{50} Oral - Rat – 1246 mg/kg & LD_{50} Dermal - Rabbit – 2040 mg/kg; CAS 100-51-6 LD_{50}, Oral - Rat 1360 mg/kg;
ATE not available in this document.

Section 12. Ecological information

Ecotoxicity (aquatic and terrestrial information)	No data available for the product
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Section 13. Disposal considerations

Information on safe handling for disposal/methods of disposal/contaminated packaging

Dispose of contents/container into safe container in accordance with local, regional or national regulations.

Section 14. Transport information

UN number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; Nonylphenol); CLASS 8; PG III

UN number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime)

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; Nonylphenol); CLASS 8; PG III

UN number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air)

UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Isophorone diamine; Nonylphenol); CLASS 8; PG III

Special precautions (transport/conveyance)	May also be shipped as a LIMITED QUANTITY in accordance with TDG.
Environmental hazards (IMDG or other)	MARINE POLLUTANT
Bulk transport (usually more than 450 L in capacity)	Possible

Section 15. Regulatory information

Safety/health Canadian regulations specifics	Refer to Section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).
Environmental Canadian regulations specifics	Refer to Section 3 for ingredient(s) of the DSL

Safety/health/environmental outside regulations specifics

United States OSHA information: This product is regulated according to OSHA (29 CFR).
United States EPA (Environmental Protection Agency) information: 40 CFR Refer to the ingredients listed in Section 3 & Sections 12; 13 & 14.
United States TCSA information: Refer to the ingredients listed in Section 3.

Section 16. Other information

Date of the latest revision of the safety data sheet	March 05, 2021 version 3 (NSS ENTREPRISE INC.)
Corrections	Complete review
References	Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
ATE	Acute toxicity estimate
CAS	Chemical Abstract Service
DSL	Domestic Substance List
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
LC	Lethal concentration
LD	Lethal Dosage
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.A.)
OSHA	Occupational Safety and Health Administration (U.S.A.)
PEL	Permissible Exposure Limit
STEL	Short-term Exposure Limit
TDG	Transport of dangerous goods in Canada
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
WHMIS	Workplace Hazardous Materials Information System