# SAFETY DATA SHEET

**Revision Date** 25-MAY-2018

## Section 1 - Identification of the Substance/Mixture and of the Company

**1.1 Product identifier CE500**

**Product Name:** 2 Part A&B 100% Solid Epoxy Clear - PART B

**Description:** Aliphatic Amine Curing Agent
**Manufacturer/Supplier:** Classic Coatings Systems

**1.2 Relevant identified uses of the preparation and uses identified against Use:** Hardener for epoxy coatings

For professional/industrial use only.

**1.3 Details of the supplier of the safety data sheet**

**Classic Coatings Systems**
**255 Citation Cir.**
**Corona, CA 92880**

**Telephone: 714-720-6954**
**Web: classiccoatingssystems.com**
**Contact: Carlos Casanola**

**1.4 Emergency telephone number**
Hazmat Service: (800) 373-7542

## Section 2 - Hazards Identification

**2.1 Classification of the substance/mixture**

**2.1.1 Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

| | |
|---|---|
| Acute oral toxicity cat. 4 | H302 |
| Acute dermal toxicity cat. 4 | H312 |
| Skin corrosion cat. 1 B | H314 |
| Acute inhalation toxicity cat. 4 | H332 |
| STOT-se/respiratory cat. 3 | H335 |
| Reproductive toxicity Cat. 2 | H361 |
| Aquatic toxicity, acute cat. 1 | H400 |
| Aquatic toxicity, chronic cat. 1 | H410 |

**2.2 Labeling elements**

**2.2.1 Labeling according Regulation (EC) No 1272/2008 [CLP]**

**Signal Word: Danger**

**Hazard pictogram:**

**Hazard statements**

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H361 Suspected of damaging fertility or the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist/vapors/spray.
P264 Wash hands and skin contact areas thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P308 + P313 If exposed or concerned: Get medical attention.
P310 Immediately call a POISON CENTER or doctor.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P312 Call a POISON CENTER or doctor if you feel unwell.
P303 + P361 + P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P405 + P403 + P233 Store locked up in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container through a waste management company authorized by the local government.

**2.3 OSHA GHS classification**

This product is classified as hazardous as defined within the GHS OSHA Hazard Communication Standard 29CFR1910.1200.

## Section 3 - Composition / Information on Ingredients

**3.1 Substances**

N/A

**3.2 Mixtures**

| Component | Concentration |
|---|---|
| 4-Nonylphenol, branched | 40-70% |

CAS No. 84852-15-3
EINECS No. 284-325-5
GHS/CLP: Acute Tox. 4 - H302; Skin Corr. 1B - H314; Repr. Tox. 2 - H361fd; Aquatic Acute 1 - H400; Acute Chronic 1 - H410

Polyoxypropylene-2,10-diamine 15-30%
CAS No. 9046-10-0
EINECS No. (polymer)
GHS/CLP: Acute tox. (oral) 4 - H302; Acute tox. (dermal) 4 - H312; Skin corros. 1B - H314; Eye damage 1 - H318; Aquatic acute 3 - H402; Aquatic chronic 3 - H412

2-Methyl-1,5-pentanediamine 15-30%
CAS No. 15520-10-2
EINECS No. 239-556-6
GHS/CLP: Flamm. Liq. 4 - H227; Acute tox. (oral) 4 - H302; Acute tox. (dermal) 4 - H312; Skin corros. 1B - H314; Eye damage 1 - H318; Acute tox. (inhal.: vapor) 4 - H332; STOT-se(resp.) 3 - H335

## Section 4 - First Aid Measures

**4.1 Description of First Aid measures**

General advice: consult a physician; show this SDS to doctor in attendance.

**In the event of skin contact:** Rinse immediately with plenty of water; remove contaminated clothing; wash thoroughly with soap and water for at least 15 minutes. If irritation, rash or other adverse effects develop, get medical attention immediately.

**In the event of eye contact:** Bathe the eye with running water for at least 15 minutes, lifting upper and lower eyelids. Get medical attention immediately.

**In the event of swallowing:** Do NOT induce vomiting unless advised by a physician. Rinse out mouth with water. Call nearest Poison Control Center or physician immediately.

**In the event of exposure by inhalation:** Move person to fresh air and keep at rest in a position comfortable for breathing; if breathing is irregular, provide artificial respiration; if there are breathing difficulties, administer oxygen; get medical attention.

**4.2 Most important symptoms and effects, both acute and delayed**

Harmful in contact with skin, if swallowed or if inhaled; can cause severe skin burns and eye damage; target organ effects; suspected of damaging fertility or the unborn child.

**4.3 Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.
Eye wash stations and emergency showers should be available.

## Section 5 - Fire Fighting Measures

**5.1 Extinguishing media**

Carbon dioxide, alcohol resistant foam, dry chemical, water fog; use water spray to cool fire-exposed

**5.2 Special hazards arising from the substance or mixture**

Product may ignite if heated in excess of its flash point. Vapors may travel to sources of ignition and flashback. Vapor concentrations in enclosed areas may ignite explosively. Empty containers may contain ignitable vapors. Exposure to decomposition products may be harmful to health; combustion products may include but are not limited to: carbon monoxide, carbon dioxide, nitrogen oxides; the formation of hydrocarbon fragments is possible in the initial stages of fire (especially in between 400°C and 700°C); smoke may contain particles of the original material as well.

**5.3 Advice for fire fighters:** Use protective fire fighting clothing and positive pressure self-contained breathing apparatus to protect against potential harmful and/or irritating fumes. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Move containers from fire area if you do it without risk. Dike fire control water for later disposal; prevent runoff from entering drains. Do not use high volume water jet on the fire as this may spread the area of the fire.

## Section 6 - Accidental Release Measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Isolate area; ensure adequate ventilation; remove all sources of ignition; use appropriate personal protection equipment; avoid breathing mist, vapors, spray; avoid contact with skin, eyes and clothing; keep unnecessary and unprotected personnel from entering the involved area. Local authorities should be advised if significant spillages cannot be contained.

**6.2 Environmental precautions**

Halt the flow of material as soon as practical using appropriate barriers; turn containers leak-side up to stop the escape of liquid. This material is a water pollutant and should be prevented from contaminating soil or from entering sewerage and drainage systems and bodies of water.

**6.3 Methods and material for containment and cleaning up**

Soak up with sand, earth, diatomaceous earth or other suitable inert absorbent material; collect into suitable waste disposal containers. Reuse uncontaminated material when possible. Wash spillage site with large amounts of water. Dispose of in accordance with applicable local and federal environmental control laws and regulations.

**6.4 Reference to other sections**

For more information on exposure controls, personal protection and disposal, review data in section 8 and section 13 of this SDS.

## Section 7 - Handling and Storage

**7.1 Precautions for safe handling**

Ensure adequate ventilation. Prevent inhalation of vapor, ingestion, and contact with skin, eyes and clothing. Keep containers closed when not in use. Precautions apply to empty containers as well. Do not eat, drink or smoke in the work area. Wash thoroughly after handling. Personal protective equipment must be worn during maintenance or repair of mixers, reactors or other equipment containing the material.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, dry area with adequate ventilation. Store away from foodstuffs and all incompatible material. Keep container tightly closed when not in use.

**Incompatibilities:** Do not store together with strong oxidizing agents.

## Section 8 - Exposure Controls / Personal Protection

**8.1 Control parameters**

**Occupational exposure limits:** OSHA PEL: None established.
Supplier recommendation: TWA 10 mg/m$^3$
Avoid repeated or prolonged exposure to vapor or mist without appropriate respiratory protection.

**8.1.2 Recommended monitoring procedures**

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference can be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents for the determination of hazardous substances.

**8.2 Exposure Controls:**

Follow good industrial workplace practices; do not eat, drink or smoke while handling; wash hands before breaks and at end of workshift; follow recommendations in this SDS.

**8.2.1 Appropriate engineering controls**

Ventilation through local exhaust if general ventilation is inadequate. Ten air changes per hour are generally recommended.

**8.2.2 Individual protection measures, such as personal protective equipment**

**8.2.2.1 Eye/face protection**

Wear chemical safety goggles and/or face shield to prevent eye contact. Refer to OSHA Standard 29CFR1910.133 and European Standard EN166.

**8.2.2.2 Skin protection**

Wear impervious clothing as necessary to protect against product contact. Necessity for boots, apron, face shield, etc. will be dependent on any hazards presented in the work process. Refer to CFR1910.132 and CFR1910.136 for OSHA approved standards on protective clothing and footwear.

**8.2.2.3 Respiratory protection**

If ventilation is inadequate or if irritation or other symptoms are experienced, wear a NIOSH/MHSA approved respirator with organic vapor cartridge. Respirator use should follow the guidelines of an established respiratory protection program in compliance with 29CFR1910.134.

**8.2.2.4 Hand protection**

Use suitable impervious neoprene or nitrile rubber gloves. When prolonged or frequently repeated contact may occur, glove material should have a breakthrough time that exceeds 480 minutes (breakthrough rating = 6); when only brief contact is expected, a glove with a lesser breakthrough rating (rating 2 = >30 minutes) may be suitable. Note the requirements of Standard EN 374.

**Other Protective Equipment:** The type and degree of personal protective equipment appropriate will depend on the specific work operation. Eye wash stations and emergency showers should be available. Inspect and replace personal protective equipment at regular intervals; use professional care in their selection, use and care.

**8.3 Environmental exposure controls**
Observe all precautions to prevent contamination of soil and waterways.

## Section 9 - Physical and Chemical Properties

**9.1 Information on basic physical and chemical properties**

**9.1.1 General information: Appearance:**
Liquid **Color:** Amber
**Type of Odor:** Amine-like
**Odor Threshold:** No data available

**9.1.2 Important health, safety and environmental information: Boiling Point:**
>200°C (>392°F)
**Melting Point:** No data available
**Flammability Classification:** Combustible IIIB
**Flash Point:** >93°C (>200°F) (cc)
**Autoignition Temperature:** No data available **Decomposition Temperature:** No data available
**Flammability Limits (lower/upper): No data available Vapor Pressure:**
No data available
**Vapor Density (Air=1):** >1
**Evaporation Rate (BuAc=1):** <1
**Octanol/Water Partition Coefficient (log $P_{ow}$):** 4.8 (Nonylphenol) **Specific Gravity:**
0.94
**Bulk Density:** 7.83 lbs/gal
**Water Solubility:** Partially miscible **pH:** (alkaline)
**Viscosity:** Not determined
**Explosive Properties:** Not determined **Oxidizing Properties:** Not determined **Molecular Formula:**
(mixture)
**VOC Content:** None

## Section 10 - Stability and Reactivity

**10.1 Stability and Reactivity**

**10.1 Reactivity**
No dangerous reaction is known under normal use and storage conditions.

**10.2 Stability**
Stable under normal use and storage conditions.

**10.3 Possibility of hazardous reactions**
Mixtures with strongly acidic materials may produce an exothermic reaction.

**10.4 Conditions to avoid**
Avoid elevated temperatures and sources of ignition.

**10.5 Incompatible materials**
Acids, oxidizing agents, epoxies, isocyanates.

**10.6 Hazardous decomposition products**
Thermal decomposition will generate carbon monoxide, carbon dioxide and nitrogen oxides.

## Section 11 - Toxicological Information

**11.1 Information on toxicological effects**

**Acute Oral Toxicity:** LD50(rat): 1351 mg/kg (ATE) **Acute**
**Dermal Toxicity:** LD50(rabbit): 1863 mg/kg (ATE)

**Acute Inhalation Toxicity:** LD50(rabbit): 16 mg/l (ATE)

**Skin Corrosion/Irritation: Draize Test:** Rabbit/skin: 500 mg/24-hr, severe
**Serious Eye Damage/Irritation: Draize Test:** Rabbit/eye: 100 mg, severe
**Skin Sensitization (guinea pig):** Non-sensitizing.

**Germ Cell Mutagenicity:** Animal testing on Nonylphenol indicate possible mutagen; tests on bacterial and mammalian cell cultures did not show mutagenic effects; there are no known adverse effects on human health.

**Carcinogenicity:** Not classified as carcinogenic. Not listed by OSHA/NTP/IARC. **Reproductive Toxicity:** Suspected of damaging fertility or the unborn child. Avoid exposure to woman during early pregnancy.

**Specific Target Organ Toxicity - single exposure (STOT-se):** Target organ: respiratory system: local irritation of the mucous membranes; respiratory disorders.

**Specific Target Organ Toxicity - repeated exposure (STOT-re):** Product not classified based on available data.

**Aspiration Hazard:** Aspiration may produce corrosive effects to the lungs.

**Potential Health Effects:**

**Skin Contact:** Corrosive; harmful in contact with skin; may cause itching, reddening, inflammation. May cause severe burns, blistering and skin damage.

**Eye Contact:** Corrosive; vapors are irritating and may cause damage to the eyes; contact may cause severe burns, conjunctivitis, corneal damage; may result in permanent eye damage including blindness.

**Ingestion:** Harmful if swallowed; may cause gastrointestinal irritation, nausea and vomiting; may cause chemical burns to stomach, throat, mouth and nose.

**Inhalation:** May be harmful by inhalation. Can cause severe irritation of mucous membranes and upper respiratory tract; may cause burns to the respiratory tract; may cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.

**Chronic Health Effects:** May cause target organ damage (liver, kidneys, lungs); reproductive effects.

**Additional Data:**

4-Nonylphenol, branched: RTECS No. SM5650000 2-Methyl-1,5-pentanediamine: RTECS No. SA0248500

## Section 12 - Ecological Information

**12.1 Toxicity**

**12.1.1 Acute/prolonged toxicity to fish**
LC50(fish)(96-hr): 0.25 mg/l (ATE)

**12.1.2 Acute/prolonged toxicity to aquatic invertebrates**
EC50(Daphnia magna)(48-hr): 0.063 mg/l (ATE)

**12.1.3 Acute/prolonged toxicity to aquatic plants**
EC50(algae)(72-hr): 0.10 mg/l (ATE)

**12.1.4 Toxicity to bacteria, to soil dwelling organisms and to terrestrial plants**
Activated sludge, respiration inhibition test: EC50 (bacteria)(static, 3-hr): 950 mg/l (Nonylphenol component)

**12.1.5 Chronic toxicity to aquatic organisms**
Long lasting adverse effects to aquatic organisms.

**12.1.6 General effect**
Very toxic to aquatic life with long lasting effects.

**12.2 Persistence and degradability**
Not readily biodegradable.

**12.3 Bioaccumulative potential**
The bioconcentration factor of 740 assigned to Nonylphenol indicates a high potential to bioaccumulate.

**12.4 Mobility in soil**
No data available; do not allow product to enter soil/subsoil.

**12.5 Results of PBT and vPvB assessment (EC reg. 453/2010)**
PBT: No
vPvB: No

**12.6 German WGK classification**
WGK = 3 (self-assessment)

**12.7 Other adverse effects**
Neutralization may be required before discharging to wastewater treatment plants.

## Section 13 - Disposal Considerations

**13.1 Waste treatment methods**
**Disposal:** Do not dump to ground, sewers or watercourses. Incinerate or otherwise dispose of in compliance with all applicable federal, state and local environmental control laws and regulations. Waste characterization according to RCRA guidelines and compliance with applicable laws are the responsibility solely of the waste generator.
**Container Disposal:** Containers should be drained of all residual product prior to disposal.

## Section 14 - Transport Information

**14.1 Shipping description**

**DOT Proper Shipping Description:**
UN2735 Amines, liquid, corrosive, n.o.s. (2-Methylpentanediamine, Polyoxypropylenediamine, Nonylphenol)
Hazard Class 8 PG II
ERG No. 153
Marine Pollutant: Yes

**IMDG:**
UN2735 Amines, liquid, corrosive, n.o.s. (2-Methylpentanediamine, Polyoxypropylenediamine, Nonylphenol)
Hazard Class 8 PG II
EmS No. F-A, S-B
Marine Pollutant: Yes

**IATA:**
UN2735 Amines, liquid, corrosive, n.o.s. (2-Methylpentanediamine, Polyoxypropylenediamine, Nonylphenol)
Hazard Class 8 PG II
EmS No. F-A, S-B

## Section 15 - Regulatory Information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
**SARA Title III Section 311/312 (40CFR370):** Acute health hazard, chronic health hazard
**SARA Title III Section 313 (40CFR372):** No reportable components
**CERCLA Status (40CFR302):** No reportable components
(Release of a hazardous substance into the environment in an amount that equals or exceeds its reportable quantity (RQ) requires notification to the National Response Center at 800-424-8802.)
**RCRA Status (40CFR261):** Not listed
**OSHA/NTP/IARC Carcinogen Status:** Not listed
**TSCA Inventory Status:** Reported/included
**Canadian DSL Status:** Reported/included
**Canadian WHMIS Status:** D1A, D2B, E

**Chemicals Known to the State of California to Cause Cancer or Reproductive Toxicity:**
None known to be in the product at levels requiring a warning.

**REACH Annex XIV (SVHC)**
Nonylphenol, branched is listed as a Substance of Very High Concern (SVHC) by ECHA (European Chemicals Agency); use restrictions may apply within the EU.

**REACH Annex XVII (Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles)**
Current legislation should be reviewed for applicable restrictions.

**REACH Status (EC 1907/2006):** This material has been registered, pre-registered or is otherwise exempted from registration under the Registration, Evaluation and Authorization of Chemical Substances.

**Chemical safety assessment**
Not available

## Section 16 - Other Information

| | | |
|---|---|---|
| **HMIS ratings:** | Health: | **3** |
| | Flammability: | **1** |
| | Reactivity: | **0** |

(Personal protective equipment selection is best assigned by the user after performing a hazard assessment on the product as it is to be used in the specific work process.)

**National chemical inventories**
All components of this product are listed on the following chemical substance inventories:
TSCA (USA)
DSL (Canada)
EINECS (Europe)
ENCS (Japan) ECL
(Korea) AICS
(Australia)
PICCS (Philippines)
IECSC (China) NZIoC
(New Zealand)

**Abbreviations**

| | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ADR | International carriage of dangerous goods by Road |
| AICS | Australian Inventory of Chemical Substances |
| AIHA | American Industrial Hygiene Association |
| ATE | Acute toxicity estimate |
| BfR | Bundesinstitut für Risikobewertung recommendations for food contact materials |
| BCF | Bioconcentration Factor |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CLP | Classification, Labeling and Packaging regulation |
| DOT | Department of Transportation |
| DSL | Domestic Substances List |
| EINECS | European Inventory of Existing Chemical Substances |
| ECL | Existing Chemicals List (Korea) |
| ENCS | Existing and New Chemical Substances Inventory (Japan) |
| EN 689 | Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy |
| ERG | Emergency Response Guide |
| GHS | Globally Harmonized System |
| HMIS | Hazardous Materials Information System |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IDLH | Immediately Dangerous to Life and Health |
| IMDG | International Maritime Dangerous Goods |
| LD50 | Lethal dose to 50% of test animal population |
| MAK | Maximale Arbeitsplatz Konzentration |
| NOAEL | No observable adverse effect level |
| NTP | National Toxicology Program |
| OEL | Occupational Exposure Limit |

| | |
|---|---|
| OSHA | Occupational Safety & Health Administration |
| PBT | Persistent, Bioaccumulative and Toxic |
| vPvB | Very Persistent and Very Bioaccumulative |
| PEL | Permissible exposure limit |
| PICCS | Philippine Inventory of Commercial Chemical Substances |
| PNEC | Predicted No Effect Concentration |
| REACH | Registration, evaluation and authorization of chemical substances |
| RID | International carriage of dangerous goods by Rail |
| SARA | Superfund Amendments and Reauthorization Act |
| STEL | Short Term Exposure Limit |
| SVHC | Substance of Very High Concern |
| TLV | Threshold Limit Value |
| TSCA | Toxic Substances Control Act |
| TWA | Time Weighted Average |
| VOC | Volatile organic compound |
| WEEL | Workplace Environmental Exposure Level |
| WGK | Wassergefahrdungsklasse (Water Hazard Class) |
| WHMIS | Workplace Hazardous Material Identification System |

The information or recommendations contained herein are based on standard product and are proprietary and furnished solely for the use of our customers. This information is provided in good faith and believed to be true and accurate as of the date shown below. However, since we have no control over the use conditions or production processes of parties using this product, Classic Coatings Systems™ cannot accept responsibility for loss, injury or other damages resulting from the use of the product or this or any other information provided by us. Therefore, no guarantees of any kind, expressed or implied, are made by Classic Coatings Systems™ with regard to any of their products. Users are advised to perform their own tests and hazard assessments to determine the safety, suitability and relevance of applicable law to the product as it is to be used by them.

END OF SDS