Safety Data Sheet



Revision Number: 003.1

Issue date: 10/24/2016

1. PRODUCT AND COMPANY IDENTIFICATION

IDH number:

Product name:

LOCTITE EF 9899CF 100M AERO known as SYNSPAND X9899 CF 100 MIL

 Product type:
 Adhesive for the Aerospace Industry

 Restriction of Use:
 None identified

 Company address:
 Henkel Corporation

 One Henkel Way
 Rocky Hill, Connecticut 06067

| Item number: | SC9092502 |
|------------------------|----------------------------------|
| Region: | United States |
| Contact information | 1 |
| Telephone: (860) 571 | -5100 |
| MEDICAL EMERGEN | ICY Phone: Poison Control Center |
| 1-877-671-4608 (toli f | free) or 1-303-592-1711 |
| TRANSPORT EMER | GENCY Phone: CHEMTREC |
| 1-800-424-9300 (tol) f | free) or 1-703-527-3887 |
| Internet: www.henkeli | |
| | |

549958

2. HAZARDS IDENTIFICATION

WARNING:

EMERGENCY OVERVIEW CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES SERIOUS EYE IRRITATION.

| HAZARD CLASS | HAZARD CATEGORY |
|--------------------|-----------------|
| SKIN IRRITATION | 2 |
| EYE IRRITATION | 2A |
| SKIN SENSITIZATION | 1 |

| PICTOGRAM(S) | |
|--------------|--|
| | |

Precautionary Statements

| Prevention: | Avoid breathing dust or fumes. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. |
|-------------|---|
| Response: | IF ON SKIN; Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs; Get medical attention. If eye irritation persists; Get medical attention. Take off contaminated clothing. |
| Storage: | Not prescribed |
| Disposal: | Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations. |

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.



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| Hazardous Component(s) | CAS Number | Percentage* | |
|--|-------------|-------------|---|
| Phenol polymer with formaldehyde, glycidyl ether | 28064-14-4 | 30 - 40 | |
| Glass, oxide, chemicals | 65997-17-3 | 20 - 30 | |
| Formaldehyde, polymer with epichlorohydrin and o-cresol | 29690-82-2 | 10 - 20 | |
| Epichtorohydrin-4,4'-isopropylidene diphenol resin | 25068-38-6 | 10 - 20 | |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, reaction products with [(dimethylamino)met | 159034-96-5 | 1-5 | |
| Dapsone | 80-08-0 | 1-5 | |
| Isopentane | 78-78-4 | 1-5 | _ |

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

| Inhalation; | If inhaled, immediately remove the affected person to fresh air. If symptoms develop and persist, get medical attention. |
|------------------------------------|---|
| Skin contact: | Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention. |
| Eye contact: | In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention. |
| Ingestion: | Get immediate medical attention. Do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions. |
| Symptoms: | See Section 11. |
| Notes to physician: | Treat symptomatically and supportively. |
| 5.79 | |
| Extinguishing media: | Water spray (fog), foarn, dry chemical or carbon dioxide. |
| Special firefighting procedures: | Wear full protective clothing. Wear self-contained breathing apparatus. |
| Unusual fire or explosion hazards: | May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses. |
| Hazardous combustion products: | Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen. |

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

| Envi | ronmental precautions: | Prevent further leakage or spillage if safe to do so. Wear appropriate protective equipment and clothing during clean-up. Do not allow product to enter sewer or waterways. |
|-------|------------------------|---|
| Clear | n-up methods: | Scrape up spilled material and place in a closed container for disposal. Dispose of according to Federal, State and local governmental regulations. |

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7 HANDLING AND STORAGE

Handling:

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not breathe fumes or dust from this material. Use only with adequate ventilation. Do not take internally.

Storage:

For safe storage, store between 0 °C (32°F) and -18 °C (0.4 °F) Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

| Hazardous Component(s) | ACGIH TLV | ÓSHA PEL | AIHA WEEL | OTHER |
|--|--|--|-----------|-------|
| Phenol polymer with formaldehyde, glycidyl ether | None | None | None | None |
| Glass, oxide, chemicals | 10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction. | 15 mg/m3 TWA Total dust. 5 mg/m3 TWA Respirable fraction. | None | None |
| Formaldehyde, polymer with epichlorohydrin and o-cresol | None | None | None | None |
| Epichlorohydrin-4,4'-isopropylidene diphenol resin | None | None | None | None |
| 4.4'-Isopropylidenediphenol, oligometic reaction products with 1-chloro-2,3- epoxypropane, reaction products with {(dimethylamino)met | None | None | None | None |
| Dapsone | None | None | None | None |
| Isopentane | 1,000 ppm TWA | None | None | None |

Engineering controls:

Respiratory protection:

Eye/face protection:

Skin protection:

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

When dusts or thermal processing fumes are generated and ventilation is not sufficient to effectively remove them, appropriate NIOSH/MSHA approved respiratory protection must be provided.

Wear safety glasses with side shields.

Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Solid

Physical state: Color: Odor: Odor threshold: pH: Vapor pressure: Boiling point/range: Melting point/range: Specific gravity: Vapor density: Flash point: Flammable/Explosive limits - lower: Flammable/Explosive limits - upper: Autoignition temperature: Flammability :

Green Slight Not available. Nit Not applicable Not applicable 0.78 > 1 > 93 °C (> 199.4 °F) Not determined Not determined Not applicable

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Product name: LOCTITE EF 9899CF 100M AERO known as SYNSPAND X9899 CF 100 MIL Page 3 of 7 Evaporation rate: Solubility in water: Partition coefficient (n-octanol/water): VOC content: Viscosity: Decomposition temperature: Not applicable Negligible Not available. < 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated) Not available. Not available.

10 STABILITY AND REACTIVITY Stability; Stable at normal conditions.

Hazardous reactions:May occur.Hazardous decomposition
products:Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low
molecular weight hydrocarbons. Oxides of nitrogen.Incompatible materials:Keep away from strong oxidizing agents, strong Lewis or mineral acids.Reactivity:Not available.Conditions to avoid:Avoid heating unless curing surfaces to be bonded. Failure to observe these precautions may
result in excessive heat build-up causing an exotherm. The exotherm has the potential for
release of toxic gasses.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:

Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation: Skin contact: Eye contact:

Ingestion:

May cause respiratory tract irritation. This product may cause irritation to the skin. This product may cause an allergic skin reaction. This product may cause irritation to the eyes. Not expected under normal conditions of use.

| Hazardous Component(s) | LD50s and LC50s | Immediate and Delayed Health Effects |
|--|-----------------|--|
| Phenol polymer with formaldehyde, glycidyl elher | None | Allergen, Irritant |
| Glass, oxide, chemicals | None | Allergen, Respiratory |
| Formaldehyde, polymer with epichlorohydrin and o-cresol | None | Imitant, Allergen |
| Epichlorohydrin-4,4'-isopropylidene diphenol resin | None | Allergen, Irritant |
| 4.4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, reaction products with [(dimethylamino)met | None | No Data |
| Dapsone | None | Allergen, Blood, Eyes, Irritant, Kidney, Nervous System, Skin |
| Isopentane | None | Cardiac, Central nervous system, Irritant, Lung |

| Hazardous Component(s) | NTP Carcinogen | IARC Carcinogen | OSHA Carcinogen (Specifically Regulated) |
|--|----------------|-----------------|---|
| Phenol polymer with formaldehyde, glycidyl ether | No | No | No |
| Glass, oxide, chemicals | No | No | No |
| Formaldehyde, polymer with epichlorohydrin and o-cresol | No | No | No |
| Epichlorohydrin-4,4'-isopropylidene diphenol resin | No | No | No |
| 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane, reaction products with [(dimethylamino)met | No | No | No |
| Dapsone | No | · No | No No |
| Isopentane | No | No | No |

12. ECOLOGICAL INFORMATION

Ecological information:

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Toxic to aquatic organisms

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| | formation provided is for unused product only. |
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| Recommended method of disposal: | Dispose of according to Federal, State and local governmental regulations |
| Hazardous waste number: | Material, if discarded, is not expected to be a characteristic hazardous was under RCRA. |
| 1 | 4. TRANSPORT INFORMATION |
| The transport information provided i package/configuration. | in this section only applies to the material/formulation itself, and is not specific to a |
| U.S. Department of Transportation G | Fround (49 CFR) |
| Proper shipping name: | Not regulated |
| Hazard class or division: | None |
| identification number: | None |
| Packing group: | None |
| International Air Transportation (ICA | .O/IATA) |
| Proper shipping name: | Not regulated |
| Hazard class or division: | None |
| Identification number: | None |
| Packing group: | None |
| Water Transportation (IMO/IMDG) | |
| Proper shipping name: | Not regulated |
| Hazard class or division: | None |
| Identification number: | None |
| Packing group: | None |
| | 5. REGULATORY INFORMATION |
| d States Regulatory Information | · |
| TSCA 8 (b) Inventory Status: | All components are listed or are exempt from listing on the Toxic Substances Control / Inventory. |
| TSCA 12 (b) Export Notification: | None above reporting de minimis |
| | None above reporting de minimis. |
| CERCI A/SARA Section 302 EHS: | |
| CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: | Immediate Health Delayed Health |
| CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: CERCLA/SARA Section 313: | Immediate Health, Delayed Health None above reporting de minimis. |
| CERCLA/SARA Section 311/312: | |
| CERCLA/SARA Section 311/312: CERCLA/SARA Section 313: California Proposition 65: | None above reporting de minimis. |
| CERCLA/SARA Section 311/312: CERCLA/SARA Section 313: California Proposition 65: | None above reporting de minimis. This product contains a chemical known in the State of California to cause cancer. Contains one or more components listed on the Non-Domestic Substances List. All ot |
| CERCLA/SARA Section 311/312: CERCLA/SARA Section 313: California Proposition 65: ada Regulatory information | None above reporting de minimis. |

Prepared by: Mark Mau, Regulatory Affairs Specialist

Issue date:

10/24/2016

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