

## 1. Identification

|   |  |
|---|--|
| <b>Product identifier</b>                                     | <b>FLEXIBLE EPOXY COATING PART B</b>     |
| <b>Other means of identification</b>                          | None.                                    |
| <b>Recommended use</b>  | Industrial Maintenance Coating           |
| <b>Recommended restrictions</b>                               | None known.                              |
| <b>Manufacturer/Importer/Supplier/Distributor information</b> | RR&C                                     |
| <b>Address</b>  | P.O. Box 67000<br>Detroit, MI 48267-2791 |
| <b>Hours of Operation</b>                                     | 8:00 a.m. - 5:00 p.m.                    |
| <b>Telephone Number</b>                                       | 1-216-515-7712                           |
| <b>CHEMTREC</b>   | 1-800-424-9300                           |

## 2. Hazard(s) identification

|                              |   |            |
|------------------------------|---|------------|
| <b>Physical hazards</b>      | Not classified.                                   |            |
| <b>Health hazards</b>        | Skin corrosion/irritation                         | Category 2 |
|                              | Serious eye damage/eye irritation                 | Category 1 |
|                              | Sensitization, skin                               | Category 1 |
|                              | Reproductive toxicity                             | Category 2 |
|                              | Specific target organ toxicity, repeated exposure | Category 1 |
| <b>Environmental hazards</b> | Not classified.                                   |            |
| <b>OSHA defined hazards</b>  | Not classified.                                   |            |

### Label elements



|  |  |
|--|--|
| <b>Signal word</b>                               | Danger   |
| <b>Hazard statement</b>                          | Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.   |
| <b>Precautionary statement</b>                   |  |
| <b>Prevention</b>                                | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.  |
| <b>Response</b>                                  | IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Specific treatment see Section 4 of this SDS. If skin irritation or rash occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse. Get medical advice/attention if you feel unwell. |
| <b>Storage</b>                                   | Store locked up.   |
| <b>Disposal</b>                                  | Dispose of contents/container in accordance with local/regional/national/international regulations.  |
| <b>Hazard(s) not otherwise classified (HNOC)</b> | None known.  |
| <b>Supplemental information</b>                  | Not applicable.  |

### 3. Composition/information on ingredients

#### Mixtures

| Chemical name                            | Common name and synonyms | CAS number | %       |
|--|--------------------------|------------|---------|
| Proprietary                              |                          | N/A        | 50 - 70 |
| 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL    |                          | 90-72-2    | 1 - 20  |
| 4-METHYL-2-PENTANONE                     |                          | 108-10-1   | 1 - 20  |
| 2-PIPERAZIN-1-YLETHYLAMINE               |                          | 140-31-8   | < 0.2   |
| Other components below reportable levels |                          |            | 8.42    |

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

|   |  |
|---|--|
| <b>Inhalation</b>   | Move to fresh air. Call a physician if symptoms develop or persist.  |
| <b>Skin contact</b>   | Wash off with soap and water. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.  |
| <b>Eye contact</b>  | Rinse with water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.   |
| <b>Ingestion</b>  | Rinse mouth. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Call a POISON CENTER or doctor/physician if you feel unwell. |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Direct contact with eyes may cause temporary irritation.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Treat symptomatically.   |
| <b>General information</b>  | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.   |

### 5. Fire-fighting measures

|  |   |
|--|---|
| <b>Suitable extinguishing media</b>                                  | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).                      |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                        |
| <b>Specific hazards arising from the chemical</b>                    | During fire, gases hazardous to health may be formed.   |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| <b>Fire fighting equipment/instructions</b>                          | Move containers from fire area if you can do so without risk.                                 |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.    |

### 6. Accidental release measures

|  |  |
|--|--|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.  |
| <b>Methods and materials for containment and cleaning up</b>               | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.<br><br>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. |
| <b>Environmental precautions</b>   | Avoid discharge into drains, water courses or onto the ground.   |

### 7. Handling and storage

|                                      |   |
|--------------------------------------|---|
| <b>Precautions for safe handling</b> | Avoid prolonged exposure. Wear appropriate personal protective equipment. Do not get this material in contact with skin. Do not get this material on clothing. Do not get this material in contact with eyes. Wash thoroughly after handling. Provide adequate ventilation. |
|--------------------------------------|---|

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

Store locked up. Store in original tightly closed container. Keep cool.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components                             | Type | Value     |
|--|------|-----------|
| 4-METHYL-2-PENTANONE<br>(CAS 108-10-1) | PEL  | 410 mg/m3 |
|  |      | 100 ppm   |

#### US. ACGIH Threshold Limit Values

| Components                             | Type | Value  |
|--|------|--------|
| 4-METHYL-2-PENTANONE<br>(CAS 108-10-1) | STEL | 75 ppm |
|  | TWA  | 20 ppm |

#### US. NIOSH: Pocket Guide to Chemical Hazards

| Components                             | Type | Value               |
|--|------|---------------------|
| 4-METHYL-2-PENTANONE<br>(CAS 108-10-1) | STEL | 300 mg/m3           |
|  |      | 75 ppm              |
|  | TWA  | 205 mg/m3<br>50 ppm |

### Biological limit values

#### ACGIH Biological Exposure Indices

| Components                             | Value  | Determinant            | Specimen | Sampling Time |
|--|--------|------------------------|----------|---------------|
| 4-METHYL-2-PENTANONE<br>(CAS 108-10-1) | 1 mg/l | Methyl isobutyl ketone | Urine    | *             |

\* - For sampling details, please see the source document.

### Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses; chemical goggles (if splashing is possible).

#### Skin protection

##### Hand protection

Chemical resistant gloves are recommended. If contact with forearms is likely wear gauntlet style gloves.

##### Other

Wear suitable protective clothing.

##### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Liquid.

**Color** Not available.

**Odor** Not available.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

|   |                              |
|---|------------------------------|
| <b>Initial boiling point and boiling range</b>      | Not available.               |
| <b>Flash point</b>                                  | < 200.0 °F (< 93.3 °C)       |
| <b>Evaporation rate</b>                             | Not available.               |
| <b>Flammability (solid, gas)</b>                    | Not available.               |
| <b>Upper/lower flammability or explosive limits</b> |                              |
| <b>Explosive limit - lower (%)</b>                  | Not available.               |
| <b>Explosive limit - upper (%)</b>                  | Not available.               |
| <b>Vapor pressure</b>                               | Not available.               |
| <b>Vapor density</b>                                | Not available.               |
| <b>Relative density</b>                             | Not available.               |
| <b>Solubility(ies)</b>                              |                              |
| <b>Solubility (water)</b>                           | Not available.               |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.               |
| <b>Auto-ignition temperature</b>                    | 840 °F (448.89 °C) estimated |
| <b>Decomposition temperature</b>                    | Not available.               |
| <b>Viscosity</b>                                    | Not available.               |
| <b>Other information</b>                            |                              |
| <b>Density</b>                                      | 8.10 lb/gal                  |
| <b>Specific gravity</b>                             | 0.97 @25C                    |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerization does not occur.  |
| <b>Conditions to avoid</b>                | Avoid temperatures exceeding the flash point. Contact with incompatible materials.            |
| <b>Incompatible materials</b>             | Strong oxidizing agents.  |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known.  |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |                                      |
|---------------------|--------------------------------------|
| <b>Inhalation</b>   | Prolonged inhalation may be harmful. |
| <b>Skin contact</b> | Causes skin irritation.              |
| <b>Eye contact</b>  | Causes serious eye damage.           |
| <b>Ingestion</b>    | May be harmful if swallowed.         |

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

#### Acute toxicity

| Components                          | Species | Test Results             |
|-------------------------------------|---------|--------------------------|
| 4-METHYL-2-PENTANONE (CAS 108-10-1) |         |                          |
| <b>Acute</b>                        |         |                          |
| <b>Dermal</b>                       |         |                          |
| LD50                                | Rabbit  | > 16000 mg/kg            |
| <b>Inhalation</b>                   |         |                          |
| LC50                                | -       | 8.2 - 16.4 mg/l, 4 Hours |

| Components          | Species | Test Results |
|---------------------|---------|--------------|
| <b>Oral</b><br>LD50 | Rat     | 2080 mg/kg   |

\* Estimates for product may be based on additional component data not shown.

|   |  |
|---|--|
| <b>Skin corrosion/irritation</b>                                      | Causes skin irritation.  |
| <b>Serious eye damage/eye irritation</b>                              | Causes serious eye damage.   |
| <b>Respiratory or skin sensitization</b>                              |  |
| <b>Respiratory sensitization</b>                                      | Not available.   |
| <b>Skin sensitization</b>   | May cause allergic skin disorders in sensitive individuals. Causes skin irritation.                              |
| <b>Germ cell mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| <b>Carcinogenicity</b>  | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.                                  |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>         |  |
| 4-METHYL-2-PENTANONE (CAS 108-10-1)                                   | 2B Possibly carcinogenic to humans.  |
| <b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b> |  |
| Not listed.   |  |
| <b>US. National Toxicology Program (NTP) Report on Carcinogens</b>    |  |
| Not listed.   |  |
| <b>Reproductive toxicity</b>  | Suspected of damaging fertility or the unborn child.   |
| <b>Specific target organ toxicity - single exposure</b>               | Not available.   |
| <b>Specific target organ toxicity - repeated exposure</b>             | Causes damage to organs through prolonged or repeated exposure.  |
| <b>Aspiration hazard</b>  | Not available.   |
| <b>Chronic effects</b>  | Prolonged inhalation may be harmful.   |

## 12. Ecological information

**Ecotoxicity** The product contains a substance which is toxic to aquatic organisms.

| Product                                   | Species | Test Results                                  |
|---|---------|---|
| FLEXIBLE EPOXY COATING PART B             |         |   |
| <b>Aquatic</b>                            |         |   |
| Fish                                      | LC50    | Fish  |
| <i>Acute</i>                              |         | 3940.1953, 96 hours                           |
| Fish                                      | LC50    | Fish  |
|   |         | 3859.4475, 96 hours estimated                 |
| <b>Components</b>                         |         |   |
| 2-PIPERAZIN-1-YLETHYLAMINE (CAS 140-31-8) |         |   |
| <b>Aquatic</b>                            |         |   |
| <i>Acute</i>                              |         |   |
| Fish                                      | LC50    | Fathead minnow ( <i>Pimephales promelas</i> ) |
|   |         | >= 1950 - <= 2460 mg/l, 96 hours              |
| 4-METHYL-2-PENTANONE (CAS 108-10-1)       |         |   |
| <b>Aquatic</b>                            |         |   |
| <i>Acute</i>                              |         |   |
| Fish                                      | LC50    | Fathead minnow ( <i>Pimephales promelas</i> ) |
|   |         | >= 492 - <= 593 mg/l, 96 hours                |

\* Estimates for product may be based on additional component data not shown.

|  |  |
|--|--|
| <b>Persistence and degradability</b>                     | No data is available on the degradability of this product. |
| <b>Bioaccumulative potential</b>                         | No data available.   |
| <b>Partition coefficient n-octanol / water (log Kow)</b> |  |
| 2-PIPERAZIN-1-YLETHYLAMINE                               | -1.57  |
| 4-METHYL-2-PENTANONE                                     | 1.31   |
| <b>Mobility in soil</b>                                  | No data available.   |

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal instructions** When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

### 14. Transport information

#### DOT

Not regulated as dangerous goods.

#### IATA

Not regulated as dangerous goods.

#### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

### 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

#### Toxic Substances Control Act (TSCA)

##### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

4-METHYL-2-PENTANONE (CAS 108-10-1) Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

##### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization  
Reproductive toxicity  
Specific target organ toxicity (single or repeated exposure)

#### SARA 313 (TRI reporting)

| Chemical name        | CAS number | % by wt. |
|----------------------|------------|----------|
| 4-METHYL-2-PENTANONE | 108-10-1   | 1 - 20   |

#### Other federal regulations

##### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

4-METHYL-2-PENTANONE (CAS 108-10-1)

##### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

4-METHYL-2-PENTANONE (CAS 108-10-1) 6715

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

4-METHYL-2-PENTANONE (CAS 108-10-1) 35 %WV

**DEA Exempt Chemical Mixtures Code Number**

4-METHYL-2-PENTANONE (CAS 108-10-1) 6715

**FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

4-METHYL-2-PENTANONE (CAS 108-10-1) Low priority

**US state regulations**

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

4-METHYL-2-PENTANONE (CAS 108-10-1)

**California Proposition 65**



**WARNING:** WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

4-METHYL-2-PENTANONE (CAS 108-10-1) Listed: November 4, 2011

**California Proposition 65 - CRT: Listed date/Developmental toxin**

4-METHYL-2-PENTANONE (CAS 108-10-1) Listed: March 28, 2014

**International Inventories**

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia                   | Australian Inventory of Industrial Chemicals (AICIS)                   | Yes                    |
| Canada                      | Domestic Substances List (DSL)   | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)               | Yes                    |
| Korea                       | Existing Chemicals List (ECL)  | Yes                    |
| New Zealand                 | New Zealand Inventory  | Yes                    |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)      | Yes                    |
| Taiwan                      | Taiwan Chemical Substance Inventory (TCSI)                             | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                          | Yes                    |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 03-21-2023

**Revision date** 06-26-2023

**Version #** 02

**NFPA ratings** Health: 3  
Flammability: 1  
Instability: 0

**Disclaimer** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Revision information** Physical & Chemical Properties: Multiple Properties