| EXAXOL CI   | Revision nr. 1<br>Dated 11/21/2022  |  |
|---|---|--|
| C103:   | 3 - Carmine Reagent   | First compilation<br>Printed on 11/21/2022<br>Page n. 1/13 |
|   |   |  |
|   | Safety Data Sheet<br>According to U.S.A. Federal Hazcom 2012                        |  |
| 1. Identification   |   |  |
| <b>1.1. Product identifier</b><br>Code:<br>Product name   | C1033<br>Carmine Reagent  |  |
| 1.2. Relevant identified uses of the substant   Intended use For Laborator                            |   |  |
| <b>1.3. Details of the supplier of the safety dat</b><br>Name<br>Full address<br>District and Country | EXAXOL CHEMICAL CORPORATION<br>14325 60 TH ST N<br>33760 CLEARWATER - FLORIDA<br>US |  |
| e-mail address  | Tel. 1-727-524-7732<br>Fax 1-727-532-8221<br>info@exaxol.com                        |  |
| <b>1.4. Emergency telephone number</b><br>For urgent inquiries refer to                               | 1-800-255-3924<br>ChemTel Inc.  |  |
| 2. Hazards identification   |   |  |
| .1. Classification of the substance or mixtu  | re  |  |
| roduct thus requires a safety datasheet.  | nt to the provisions set forth in OSHA Hazard Commun                                |  |
| lazard pictograms:<br>Skin corrosion, category 1  | Causes severe skin<br>burns and eye<br>damage.                                      |  |
| Serious eye damage, category 1  | Causes serious eye<br>damage.   |  |
| Le   |   |  |
|   |   |  |

|                             |  | AL CORPORATION   |                   | Revision nr. 1                   |
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| Signal words:               | Danger   |  |                   |                                  |
| Hazard statements:          |  |  |                   |                                  |
| H314                        | Causes severe skin burns an  | id eye damage.   |                   |                                  |
| Precautionary statements:   |  |  |                   |                                  |
| Prevention:                 |  |  |                   |                                  |
| P260                        | Do not breathe dust / fume /   |  |                   |                                  |
| P280<br>P264                | Wear protective gloves/ prote<br>Wash skin thoroughly after ha       | ective clothing / eye protection / face protec<br>andling.   | ction.            |                                  |
| Response:                   |  | -  |                   |                                  |
| P305+P351+P338              |  | with water for several minutes. Remove c                     | ontact lenses, if | present and easy to do. Continue |
| P301+P330+P331              | rinsing.<br>IF SWALLOWED: Rinse mou                                  | uth. Do NOT induce vomiting.                                 |                   |                                  |
| P303+P361+P353              | IF ON SKIN (or hair): Take of  | ff immediately all contaminated clothing. R                  | inse skin with wa | ter / shower.                    |
| P310                        | Immediately call a POISON (  |  | thing             |                                  |
| P304+P340<br>P363           | Wash contaminated clothing   | to fresh air and keep comfortable for breat<br>before reuse. | tning.            |                                  |
| Storage:                    |  |  |                   |                                  |
| P405                        | Store locked up.   |  |                   |                                  |
| Disposal:<br><b>P501</b>    | Dispose of contents / container to an approved waste disposal plant. |  |                   |                                  |
|                             |  |  |                   |                                  |
| 2.2. Other hazards          |  |  |                   |                                  |
| Information not available   |  |  |                   |                                  |
| 3. Composition/i            | nformation on ingredi  | ents   |                   |                                  |
| 3.2. Mixtures               |  |  |                   |                                  |
| Contains:                   |  |  |                   |                                  |
| Identification              | x = Conc. %  | Classification:  |                   |                                  |
| SULPHURIC ACID              |  |  |                   |                                  |
| CAS 7664-93-9               | 98 ≤ x < 100   | Skin corrosion, category 1A H314, Serie                      | ous eve damage    | . category 1 H318                |
| EC 231-639-5                |  |  | oue eye damage    |                                  |
| INDEX 016-020-00-8          |  |  |                   |                                  |
| INDEX 010-020-00-6          |  |  |                   |                                  |
| The full wording of hazard  | (H) phrases is given in section                                      | 16 of the sheet.   |                   |                                  |
| 4. First-aid meas           | sures  |  |                   |                                  |
| 4.1. Description of first a | id measures  |  |                   |                                  |

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical

advice/attention. SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention. INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

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INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

#### 4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

### 4.3. Indication of any immediate medical attention and special treatment needed

Information not available

# 5. Fire-fighting measures

### 5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray. UNSUITABLE EXTINGUISHING EQUIPMENT None in particular.

### 5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Do not breathe combustion products.

#### 5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

### 6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections

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Any information on personal protection and disposal is given in sections 8 and 13.

## 7. Handling and storage

## 7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s)

Information not available

## 8. Exposure controls/personal protection

#### 8.1. Control parameters

Regulatory References:

| USA | NIOSH-REL    | NIOSH publication No. 2005-149, 3th printing, 2007.   |
|-----|--------------|---|
| USA | OSHA-PEL     | Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.                           |
| USA | CAL/OSHA-PEL | California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).      |
| EU  | OEL EU       | Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive |
| EU  | TLV-ACGIH    |   |

### SULPHURIC ACID

| Threshold Limit Value |         |        |     |            |     |       |  |
|-----------------------|---------|--------|-----|------------|-----|-------|--|
| Туре                  | Country | TWA/8h |     | STEL/15min |     |       |  |
|                       |         | mg/m3  | ppm | mg/m3      | ppm |       |  |
| OEL                   | EU      | 0.05   |     |            |     | THORA |  |
| TLV-ACGIH             | -       | 0.2    |     |            |     |       |  |
| OSHA                  | USA     | 1      |     |            |     |       |  |
| CAL/OSHA              | USA     | 0.1    |     | 3          |     |       |  |
| NIOSH                 | USA     | 1      |     |            |     |       |  |

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

#### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

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## HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.

## ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

#### 9.2. Other information

Information not available

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## 10. Stability and reactivity

#### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

#### SULPHURIC ACID

Decomposes at 450°C/842°F.

#### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

### 10.5. Incompatible materials

#### SULPHURIC ACID

Incompatible with: flammable substances, reducing substances, basic substances, metals, organic substances, water.

#### 10.6. Hazardous decomposition products

### SULPHURIC ACID

May develop: sulphur oxides.

## 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological

#### effects of exposure to the product. 11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

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Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

### Interactive effects

Information not available

### ACUTE TOXICITY

SULPHURIC ACID

LD50 (Oral) 2140 mg/kg Rat

### SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment: 7664-93-9SULPHURIC ACID ACGIH:: A2

### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

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Does not meet the classification criteria for this hazard class

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

# 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

### 12.1. Toxicity

Information not available

### 12.2. Persistence and degradability

| SULPHURIC ACID                           |
|--|
| Solubility in water                      |
| Degradability: information not available |

1000 - 10000 mg/l

## 12.3. Bioaccumulative potential

Information not available

### 12.4. Mobility in soil

Information not available

### 12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### 12.6. Other adverse effects

Information not available

## 13. Disposal considerations

### 13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. CONTAMINATED PACKAGING Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## 14. Transport information

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### 14.1. UN number

ADR / RID, IMDG, 1830 IATA:

## 14.2. UN proper shipping name

| ADR / RID: | SULPHURIC ACID |
|------------|----------------|
| IMDG:      | SULPHURIC ACID |
| IATA:      | SULPHURIC ACID |

#### 14.3. Transport hazard class(es)

| ADR / RID: | Class: 8 | Label: 8 |   |
|------------|----------|----------|---|
| IMDG:      | Class: 8 | Label: 8 |   |
| ΙΑΤΑ:      | Class: 8 | Label: 8 | 8 |

## 14.4. Packing group

ADR / RID, IMDG, Ш IATA:

#### 14.5. Environmental hazards

| ADR / RID: | NO |
|------------|----|
| IMDG:      | NO |
| IATA:      | NO |

#### 14.6. Special precautions for user

| ADR / RID: | HIN - Kemler: 80<br>Special Provision: - | Limited<br>Quantities: 1<br>L | Tunnel<br>restriction<br>code: (E) |
|------------|--|-------------------------------|------------------------------------|
| IMDG:      | EMS: F-A, S-B                            | Limited<br>Quantities: 1<br>L |                                    |
| IATA:      | Cargo:                                   | Maximum<br>quantity: 30 L     | Packaging<br>instructions:<br>855  |
|            | Pass.:                                   | Maximum<br>quantity: 1 L      | Packaging<br>instructions:<br>851  |
|            | Special Instructions:                    | -                             |                                    |

## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant



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## 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):

No component(s) listed.

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

<u>Clean Water Act –</u> Priority Pollutants:

No component(s) listed.

Clean Water Act – Toxic Pollutants:

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

No component(s) listed.

EPA List of Lists:

313 Category Code:

| SULPHURIC ACID |
|----------------|
| SULPHURIC ACID |
| SULPHURIC ACID |
| SULPHURIC ACID |
|                |

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|--|--------------------------|---------------|
| 7664-93-9  | SULPHURIC ACID           |               |
| RCRA Code:   |                          |               |
| No component(s) listed.                                    |                          |               |
| CAA 112 (r) RMP TQ:  |                          |               |
| No component(s) listed.                                    |                          |               |
| State Regulations  |                          |               |
| Massachussetts:  |                          |               |
| 7664-93-9  | SULPHURIC ACID           |               |
| <u>Minnesota:</u>  |                          |               |
| 7664-93-9  | SULPHURIC ACID           |               |
| New Jersey:  |                          |               |
| 7664-93-9  | SULPHURIC ACID           |               |
| New York:  |                          |               |
| 7664-93-9  | SULPHURIC ACID           |               |
| Pennsylvania:  |                          |               |
| 7664-93-9  | SULPHURIC ACID           |               |
| <u>California:</u>   |                          |               |
| 7664-93-9  | SULPHURIC ACID           |               |
| Proposition 65:  |                          |               |
| International Regulations                                  |                          |               |
| Substances subject to exportation reporting pursuant to (E | <u>C) Reg. 649/2012:</u> |               |
| None   |                          |               |
| Substances subject to the Rotterdam Convention:            |                          |               |
| None   |                          |               |
| Substances subject to the Stockholm Convention:            |                          |               |
| None   |                          |               |
| Candadian WHMIS  |                          |               |
| Information not available                                  |                          |               |
| 16. Other information                                      |                          |               |

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Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H314 Causes severe skin burns and eye damage.

Causes serious eye damage.

LEGEND:

H318

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh Registry of Toxic Effects of Chemical Substances
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.