**CI**<u>TCI EUROPE N.V.</u>

## SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

| Revision number: 2   |   | Revision date: 01/08/201 |
|--|---|--------------------------|
| SECTION 1: Identification of the   | substance/mixture and of the company/undertaking  |                          |
| 1.1 Product identifiers  |   |                          |
| Product name:<br>Product code:   | Bromocresol Green - Methyl Red Solution (Ethanol Soln.) [mixed Indicator]<br>B0120  |                          |
| 1.2 Relevant identified uses of the su<br>Identified uses:   | entified uses of the substance or mixture and uses advised against<br>ses: Reagents.  |                          |
| 1.3 Details of the supplier of the safe<br>Supplier:   | ty data sheet   |                          |
| TCI EUROPE N.V.<br>Boerenveldseweg 6<br>Haven 1063<br>B-2070 Zwijndrecht                                     |   |                          |
| Telephone: +32(0)3 735 07 (<br>E-mail: sales-eu@tcichemica   |   |                          |
| .4 Emergency telephone number:   | +32(0)70 245 245  |                          |
| SECTION 2: Hazards identification  |   |                          |
| .1 Classification of the substance of<br>Flammable liquids   | r mixture<br>Category 2   |                          |
| Serious eye damage/eye irritation  | 6 7   |                          |
| Germ cell mutagenicity   | Category 1B   |                          |
| Reproductive toxicity Category 1A  |   |                          |
| Specific target organ toxicity - Single exposure [Category 3] Respiratory tract irritation, Narcotic effects |   |                          |
| 2.2 Label elements<br>Pictograms or hazard symbols   |   |                          |
| Signal word  | Danger  |                          |
| Hazard statements  | H225-Highly flammable liquid and vapour.<br>H319-Causes serious eye irritation.<br>H340-May cause genetic defects.<br>H360FD-May damage fertility. May damage the unborn child.<br>H372-Causes damage to organs through prolonged or repeated exposure : Liver<br>H373-May cause damage to organs through prolonged or repeated exposure : Nervous system<br>H335-May cause respiratory irritation.<br>H336-May cause drowsiness or dizziness.  |                          |
| Precautionary statements   | <ul> <li>P260-Do not breathe mist, vapours or spray.</li> <li>P280-Wear protective gloves, protective clothing, face protection.</li> <li>P303+P361+P353-IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</li> <li>P304+P340+P312-IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.</li> <li>P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.</li> <li>P308+P313-IF exposed or concerned: Get medical advice or attention.</li> </ul> |                          |
| .3 Other hazards   | F300+F313-IF exposed of concerned: Get medical advice of attention.   |                          |
| Results of PBT and vPvB assessm  | ent   |                          |
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Indicator]

| PBT:<br>vPvB:                               | Not applicable<br>Not applicable   |  |
|---|--|--|
| SECTION 3: Composition/infor                | mation on ingredients  |  |
| 3.2 Mixtures<br>Components:                 | Bromocresol Green - Methyl Red Solution (Ethanol Soln.) [mixed Indicator]  |  |
| Percent:<br>CAS RN:                         | <br>NA   |  |
| Synonyms:<br>Chemical Formula:              | Methyl Red - Bromocresol Green Solution (Ethanol Soln.)  |  |
| Chemical Formula:<br>Hazardous composition: | <b>Chemical name: Ethanol</b> Conc.: > 90%<br>CAS RN:64-17-5 EC No.: 200-578-6<br>Flam. Liq. 2, Eye Irrit. 2<br>H225: Highly flammable liquid and vapour. H319: Causes serious eye irritation. |  |

| SECTION 4: First aid measures         |  |
|---------------------------------------|--|
| 4.1 Description of first aid measures |  |
| Inhalation:                           | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.               |
| Skin contact:                         | Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.  |
| Eye contact:                          | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention. |
| Ingestion:                            | Get medical advice/attention.Rinse mouth.  |
| Protection of first-aiders:           | A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.                                |

# 4.2 Most important symptoms and effects, both acute and delayed No data available

**4.3 Indication of any immediate medical attention and special treatment needed** No data available

| SECTION 5: Firefighting measures   |   |  |
|--|---|--|
| 5.1 Extinguishing media  |   |  |
| Suitable extinguishing media:  | Dry chemical, foam, water in large amounts, carbon dioxide.   |  |
| 5.2 Special hazards arising from the<br>substance or mixture               | Carbon monoxide, carbon dioxide etc   |  |
| 5.3 Advice for firefighters  | Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so. When extinguishing fire, be sure to wear personal protective equipment  |  |
| SECTION 6: Accidental release mea  | isures  |  |
| 6.1 Personal precautions, protective<br>equipment and emergency procedures | Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc  |  |
| 6.2 Environmental precautions  | Prevent product from entering drains  |  |
| 6.3 Methods and materials for<br>containment and cleaning up               | Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment. |  |
| 6.4 Reference to other sections  | For disposal see section 13.  |  |

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| SECTION 7: Handling and storage                                  | e   |  |
|--|---|--|
| 7.1 Precautions for safe handling                                | Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfacesNo smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid all contact! |  |
| 7.2 Conditions for safe storage, including any incompatibilities | Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.   |  |
| 7.3 Specific end use(s)  | No further relevant information available.  |  |
| SECTION 8: Exposure controls/p                                   | ersonal protection  |  |
| 8.1 Control parameters   | No data available<br>(Ethanol)<br>ACGIH TLV(STEL):1000 ppm<br>OSHA PEL(TWA):1000 ppm  |  |
| 8.2 Exposure controls  | Install a closed system or local exhaust. Also install safety shower and eye bath.  |  |
| Respiratory protection:  | Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc.<br>Use respirators approved under appropriate government standards and follow local and national<br>regulations.   |  |
| Hand protection:   | Impervious gloves.  |  |
| Eye protection:  | Safety goggles. A face-shield, if the situation requires.   |  |
| Skin and body protection:  | Impervious protective clothing. Protective boots, if the situation requires.  |  |
| SECTION 9: Physical and chemic                                   |   |  |
| 9.1 Information on basic physical and                            |   |  |
| Physical state (20°C):   | Liquid  |  |
| Form:  | Clear   |  |
| Colour:  | Red - Deep red  |  |
| Odour:   | Characteristic  |  |
| pH:  | No data available   |  |

Melting point/freezing point:

| Flash point:                       | No data available                 |
|------------------------------------|-----------------------------------|
|                                    | (Ethanol) 13°C                    |
| Evaporation rate(Butyl Acetate=1): | No data available                 |
| Flammability(solid, gas):          | No data available                 |
| Flammability or explosive limits:  |                                   |
| Lower:                             | No data available                 |
| Upper:                             | No data available                 |
| Vapour pressure:                   | No data available.                |
| Vapour density:                    | No data available                 |
| Relative density:                  | No data available                 |
| Solubility(ies):                   |                                   |
| [Water]                            | No data available                 |
| [Other solvents]                   | No data available                 |
| Partition coefficient:             | No data available (Ethanol) -0.32 |
| n-octanol/water:                   |                                   |
| Autoignition temperature:          | No data available                 |
| Decomposition temperature:         | No data available                 |
| Dynamic Viscosity:                 | No data available                 |
| Kinematic viscosity:               | No data available                 |
| 9.2 Other safety information       | No data available                 |
|                                    |                                   |

No data available (Ethanol) -117°C No data available (Ethanol) 79°C

| SECTION 10: Stability and reactivity                                      |   |  |
|---|---|--|
| 10.1 Reactivity   | No data available   |  |
| 10.2 Chemical stability   | Stable under proper conditions.                                       |  |
| 10.3 Possibility of hazardous reactions                                   | s No special reactivity has been reported.                            |  |
| 10.4 Conditions to avoid  | Spark, Open flame, Static discharge                                   |  |
| 10.5 Incompatible materials   | Oxidizing agents, Acid chlorides, Acid anhydrides, Peroxides, Ammonia |  |
| 10.6 Hazardous decomposition products Carbon monoxide, carbon dioxide etc |   |  |

| I Information on toxicological effect | S                            |
|---------------------------------------|------------------------------|
| Acute Toxicity:                       | No data available            |
| -                                     | (Ethanol)                    |
|                                       | orl-hmn LDLo:1400 mg/kg      |
|                                       | orl-rat LD50:7060 mg/kg      |
|                                       | skn-rbt LDLo:20 g/kg         |
|                                       | ihl-rat LC50:20000 ppm/10H   |
| Skin corrosion/irritation:            | No data available            |
|                                       | (Ethanol)                    |
|                                       | skn-rbt 400 mg open MLD      |
| Serious eye damage/irritation:        | No data available            |
|                                       | (Ethanol)                    |
|                                       | eye-rbt 500 mg/24H MLD       |
| Respiratory or skin sensitization:    | No data available            |
| Germ cell mutagenicity:               | No data available            |
|                                       | (Ethanol)                    |
|                                       | cyt-hmn-fbr 12000 ppm        |
|                                       | mmo-sat 11 pph (+S9)         |
|                                       | mmo-esc 140 g/L (-S9)        |
| Carcinogenicity:                      |                              |
| IARC =                                | No data available            |
| NTP =                                 | No data available            |
|                                       | (Ethanol)                    |
|                                       | orl-mus TDLo:320 mg/kg/50W-l |
|                                       | rec-mus TDLo:120 g/kg/18W-I  |
|                                       | IARC = 1                     |
| Reproductive toxicity:                | No data available            |
| STOT-single exposure:                 | No data available            |
| STOT-repeated exposure:               | No data available            |
| Aspiration hazard:                    | No data available            |

## SECTION 12: Ecological information

| 12.1 Toxicity                       |                   |
|-------------------------------------|-------------------|
| Fish:                               | No data available |
| Crustacea:                          | No data available |
| Algae:                              | No data available |
| 12.2 Persistence and degradability  | No data available |
| 12.3 Bioaccumulative potential      | No data available |
| 12.4 Mobility in soil               |                   |
| Log Pow:                            | No data available |
| Soil adsorption (Koc):              | No data available |
| Henry's Law (PaM ³/mol):            | No data available |
| 12.5 Results of PBT and vPvB assess | sment             |
| PBT:                                | Not applicable    |
| vPvB:                               | Not applicable    |
| 12.6 Other adverse effects          | No data available |
|                                     |                   |

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#### SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system but exert extra care in igniting as this material is highly flammable. Observe all federal, state and local regulations when disposing of the substance

| SECTION 14: Transport informat  | ion   |  |
|---|---|--|
| 14.1 UN number  | 1170  |  |
| 14.2 UN proper shipping name  |   |  |
| ADR/RID   | Ethanol solution  |  |
| IMDG/IMO  | Ethanol solution  |  |
| ICAO/IATA   | Ethanol solution  |  |
| 14.3 Transport hazard class(es)   |   |  |
| ADR/RID   | 3: Flammable liquid                                       |  |
| IMDG/IMO  | 3: Flammable liquid                                       |  |
| ICAO/IATA   | 3: Flammable liquid                                       |  |
| 14.4 Packaging group  |   |  |
| ADR/RID   | П   |  |
| IMDG/IMO  | II  |  |
| ICAO/IATA   | II  |  |
| 14.5 Environmental hazards  |   |  |
| Marine pollutant  | -   |  |
| 14.6 Special precautions for user   | No data available   |  |
| SECTION 15: Regulatory informa  | ntion   |  |
| 15.1 Safety, health and environmenta<br>Substance of Very High Concern<br>REACH Regulations (EC) No.190 | l regulations/legislation spec<br>(SVHC) according to the | cific for the substance or mixture<br>Not listed   |
| 15.2 Chemical safety assessment   |   | A chemical safety assessment has not been carried out.   |
| SECTION 16: Other information   |   |  |
| Prepared by:  | TCI EUROPE N.V.   |  |
| Issue date:   | 01/08/2019  |  |
| contained and the assessment of hazar   | ds and toxicity. Prior to use, pl                         | build obtained, however, any warranty shall not be given regarding the data<br>ease investigate not only the hazards and toxicity information but also the<br>reducte are to be used, which chall be given the first priority. |

contained and the assessment of nazards and toxicity. Prior to use, please investigate not only the nazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

End of Safety Data Sheet

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