

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 15/01/2019 Revision date: Version: 1.0 : CLM-8017-0.1MG

| SECTION 1: Identification of the substance/mixture and of the company/undertaking     |   |  |
|---|---|--|
| 1.1. Product identifier   |   |  |
|   | : Substance   |  |
| Substance name  | : DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) |  |
| CAS-No.   | : 58562-33-7 (Unlabeled)                            |  |
| Product code  | : CLM-8017-0.1MG                                    |  |
| Formula   | : C13*C6H24O3                                       |  |
|   | : 4-Methoxy-13C,destrone                            |  |
| 1.2. Relevant identified uses of the substa   | ance or mixture and uses advised against            |  |
| 1.2.1. Relevant identified uses   |   |  |
| Main use category   | : Professional use                                  |  |
| Industrial/Professional use spec  | : For professional use only                         |  |
| 1.2.2. Uses advised against   |   |  |
| No additional information available   |   |  |
| 1.3. Details of the supplier of the safety da   | ata sheet   |  |
| Cambridge Isotope Laboratories, Inc.  |   |  |
| 50 Frontage Road  |   |  |
| Andover, MA 01810<br>USA  |   |  |
| USA: 1-800-322-1174 Int: 1-978-749-8000   |   |  |
| cilsales@isotope.com www.isotope.com  |   |  |
| Emergency telephone number  |   |  |
| Emergency numbers:  |   |  |
| Chemtrec: 1-800-424-9300 (24 hours)<br>International: 1-703-741-5970 (24 hours)       |   |  |
| SECTION 2: Hazards identification   |   |  |
| 2.1. Classification of the substance or mixture                                       |   |  |
|   |   |  |
| Classification according to Regulation (EC) No. 1272/2008 [CLP]<br>Skin Irrit. 2 H315 |   |  |
| Eye Irrit. 2 H319   |   |  |
| Carc. 2 H351  |   |  |
| STOT SE 3 H335  |   |  |
| Full text of hazard classes and H-statements : see section 16                         |   |  |
|   |   |  |
| Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]            |   |  |
| Carc.Cat.3; R40<br>Xi; R36/37/38  |   |  |
| XI; R36/37/38<br>Full text of R-phrases: see section 16                               |   |  |
|   |   |  |
| GHS-US classification   |   |  |
| Skin Irrit. 2 H315  |   |  |
| Eye Irrit. 2A H319<br>Carc. 2 H351  |   |  |
| STOT SE 3 H335  |   |  |
| Full text of H statements : see section 16  |   |  |
|   |   |  |

Adverse physicochemical, human health and environmental effects

No additional information available

CLM-8017-0.1MG

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| 2.2. Label elements                   |  |
|---------------------------------------|--|
| Labeling according to Regulation (EC) | lo. 1272/2008 [CLP]  |
| Hazard pictograms (CLP)               |  |
|                                       | GHS08 GHS07  |
| Signal word (CLP)                     | : Warning  |
| Hazard statements (CLP)               | <ul> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> <li>H335 - May cause respiratory irritation</li> <li>H351 - Suspected of causing cancer (if inhaled, if swallowed, in contact with skin, inhalation, oral)</li> </ul>  |
| Precautionary statements (CLP)        | <ul> <li>P261 - Avoid breathing dust, mist.</li> <li>P264 - Wash both hands thoroughly after handling.</li> <li>P271 - Use only outdoors or in a well-ventilated area.</li> <li>P280 - Wear eye protection, face protection, protective clothing, protective gloves.</li> <li>P302+P352 - IF ON SKIN: Wash with plenty of soap and water.</li> <li>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P308+P313 - IF exposed or concerned: Get medical advice/attention.</li> </ul>  |
| GHS-US labeling                       |  |
| Hazard pictograms (GHS-US)            |  |
|                                       | GHS08 GHS07  |
| Signal word (GHS-US)                  | : Warning  |
| Hazard statements (GHS-US)            | <ul> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> <li>H335 - May cause respiratory irritation</li> <li>H351 - Suspected of causing cancer (Dermal, Inhalation, oral)</li> </ul>  |
| Precautionary statements (GHS-US)     | <ul> <li>P201 - Obtain special instructions before use.</li> <li>P202 - Do not handle until all safety precautions have been read and understood.</li> <li>P261 - Avoid breathing dust, mist.</li> <li>P264 - Wash Both hands thoroughly after handling.</li> <li>P271 - Use only outdoors or in a well-ventilated area.</li> <li>P280 - Wear eye protection, face protection, protective clothing, protective gloves.</li> <li>P302+P352 - If on skin: Wash with plenty of water</li> <li>P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing</li> <li>P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</li> <li>P308+P313 - If exposed or concerned: Get medical advice/attention.</li> <li>P312 - Call a doctor if you feel unwell</li> <li>P321 - Specific treatment (see Hazard pictograms (CLP) on this label)</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention.</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse.</li> <li>P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</li> <li>P405 - Store locked up.</li> <li>P501 - Dispose of contents/container to Comply with applicable regulations</li> </ul> |

### Other hazards 2.3.

No additional information available

| SECTION 3: Composition/Information on ingredients |                                  |     |   |
|---|----------------------------------|-----|---|
| 3.1. Substances                                   |                                  |     |   |
| Name  | Product identifier               | %   | Classification according to<br>Directive 67/548/EEC |
| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) | (CAS-No.) 58562-33-7 (Unlabeled) | 100 | Carc.Cat.3; R40<br>Xi; R36/37/38                    |
| 15/01/2019 EN (Er                                 | alish US)                        |     | 2/7   |

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name  | Product identifier               | %   | Classification according to<br>Regulation (EC) No.<br>1272/2008 [CLP]         |
|---|----------------------------------|-----|---|
| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) | (CAS-No.) 58562-33-7 (Unlabeled) | 100 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Carc. 2, H351<br>STOT SE 3, H335 |

## Full text of R- and H- phrases: see section 16

| Name  | Product identifier               | %   | GHS-US classification  |
|---|----------------------------------|-----|--|
| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%)<br>(Main constituent) | (CAS-No.) 58562-33-7 (Unlabeled) | 100 | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>Carc. 2, H351<br>STOT SE 3, H335 |

## Full text of H-phrases: see section 16

| Not applicable SECTION 4: First aid measures SECTION 4: First aid measures if you feel unwell, seek medical advice (show the label where possible). Evacuate danger area. First-aid measures after inhalation if you feel unwell, seek medical advice (show the label where possible). Evacuate danger area. First-aid measures after is contact if where symptoms occur: go into open air and ventileal esupected area. If not breathing give artificial respiration. Get medical advice/attention. First-aid measures after is contact if what with plenty of scap and water, and scap. Get immediate medical advice/attention. First-aid measures after is contact if what with plenty of scap and water, and scap. Get immediate medical advice/attention. First-aid measures after is contact if what with plenty of scap and water, and scap. Get immediate medical advice/attention. First-aid measures after is contact if what water give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention. if what important symptoms and effects, both active and delayed Symptoms/effects after skin contact if Causes skin infration. Symptoms/effects after inhalation if Causes skin infration. Sym | 3.2. Mixtures                            |  |  |  |
|--|--|--|--|--|
| 4.1.       Description of first aid measures         First-aid measures general       If you fell unwell, seek medical advice (advice) the label where possible). Evacuate danger area.         First-aid measures after inhalation       When symptoms occur: go into open air and ventilate suspected area. If not breathing give artificial respiration. Get medical advice/attention.         First-aid measures after skin contact       Rinse caulously with water for several minutes.         First-aid measures after ingestion       Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       May cause respiratory initiation.         Symptoms/effects after skin contact       : Causes skin initiation.         Symptoms/effects after eye contact       : Causes skin initiation.         Symptoms/effects after skin contact       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.1.       Schridishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.3.       Advice of firefighters       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus.  | Not applicable                           |  |  |  |
| First-aid measures general       : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area.         First-aid measures after inhalation       : When symptoms occur: go into open air and ventilate suspected area. If not breathing give artificial respiraton. Get medical advice/attention.         First-aid measures after skin contact       : Wash with plenty of scap and water. and scap. Get immediate medical advice/attention.         First-aid measures after ingestion       : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       : May cause respiratory initation.         Symptoms/effects after skin contact       : Causes skin irritation.         Symptoms/effects after inspection       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.1.       Extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture       No additional information available         5.3.       Advice for firefighters       : Figh   | SECTION 4: First aid measures            |  |  |  |
| First-aid measures after inhalation       : When symptoms occur: go into open air and ventilate suspected area. If not breathing give artificial respiration. Get medical advice/attention.         First-aid measures after skin contact       : Wash with plenty of soag and water. and soap. Get immediate medical advice/attention.         First-aid measures after skin contact       : Rinse cautiously with water for several minutes.         First-aid measures after ingestion       : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       : May cause respiratory initiation.         Symptoms/effects after since contact       : Causes serious eye irritation.         Symptoms/effects after since contact       : Causes serious eye irritation.         Symptoms/effects after since modical attention and special treatment needed       No additional information available         SectTION 5: Firefighting measures       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture         No additional information available       : Vater spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.3.       Advice for firefighters       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without pr  | 4.1. Description of first aid measures   |  |  |  |
| artificial respiration. Get medical advice/attention.         First-aid measures after sin contact       : Wash with plenty of soap and water. and soap. Get immediate medical advice/attention.         First-aid measures after eye contact       : Rinse cautiously with water for several minutes.         First-aid measures after ingestion       : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical advice/attention.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       : May cause respiratory initiation.         Symptoms/effects after sign contact       : Causes strious eye initiation.         Symptoms/effects after sign contact       : Causes strious eye initiation.         Symptoms/effects after sign contact       : Causes strious eye initiation.         Symptoms/effects after sign contact       : Causes strious eye initiation.         Symptoms/effects after sign contact       : Causes strious eye initiation.         Symptoms/effects after sign contact       : Causes strious eye initiation.         Symptoms/effects after inplastion       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).     <  | First-aid measures general               | : If you feel unwell, seek medical advice (show the label where possible). Evacuate danger area. |  |  |
| First-aid measures after eye contact       : Rinse cautiously with water for several minutes.         First-aid measures after ingestion       : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical add/ce/attention.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       : May cause respiratory irritation.         Symptoms/effects after symptoms contact       : Causes strinustion.         Symptoms/effects after symptoms contact       : Causes strinus eye irritation.         Symptoms/effects after symptoms contact       : Causes strinus eye irritation.         Symptoms/effects after symptoms contact       : Causes strinus eye irritation.         Symptoms/effects after symptoms and effects.       Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       Suspected carcinogen.         5.1.       Extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture       No additional information available         5.3.       Advice for firefighters       :         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper prote  | First-aid measures after inhalation      |  |  |  |
| First-aid measures after ingestion       : Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get medical ad/ccelatention.         4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       : May cause respiratory initiation.         Symptoms/effects after inhalation       : Causes skin initiation.         Symptoms/effects after inhalation       : May cause respiratory initiation.         Symptoms/effects after inhalation       : Causes skin initiation.         Symptoms/effects after inhalation       : Wates serious eye initiation.         Symptoms/effects after inhalation       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       Suitable extinguishing media         Statable extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.3.       Advice for firefighters       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing aparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         W  | First-aid measures after skin contact    | : Wash with plenty of soap and water. and soap. Get immediate medical advice/attention.          |  |  |
| 4.2.       Most important symptoms and effects, both acute and delayed         Symptoms/effects after inhalation       May cause respiratory irritation.         Symptoms/effects after inhalation       : Causes skin irritation.         Symptoms/effects after eye contact       : Causes serious eye irritation.         Symptoms/effects after ingestion       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.1.       Extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture       No additional information available         5.3.       Advice for firefighters       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing appratus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment.         SECTION 6: Accidential release measures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.       Personal precautions, protective equipment and emergency procedures       : Avoid breathing vapors, mist, gas. Avoid  | First-aid measures after eye contact     |  |  |  |
| Symptions/effects after inhalation       : May cause respiratory irritation.         Symptions/effects after skin contact       : Causes skin irritation.         Symptions/effects after eye contact       : Causes skin irritation.         Symptions/effects after ingestion       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       .         Striftighting measures         Solution of any immediate medical attention and special treatment needed         No additional information available         Striftighting media         Striftighting media         Suitable extinguishing media         Suitable extinguishing media         Striftighting instructions         Si Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing aparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Striftighting instructions         Si Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing aparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Striftighting media       : Void thre  | First-aid measures after ingestion       |  |  |  |
| Symptoms/effects after skin contact       : Causes skin irritation.         Symptoms/effects after eye contact       : Causes skin irritation.         Symptoms/effects after ingestion       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.1.       Extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture       No additional information available         5.3.       Advice for firefighters       :         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.         SECTION 6: Accidental release measures       .         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For on-emergency personnel         Emergency rocedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do  | 4.2. Most important symptoms and effect  | ts, both acute and delayed   |  |  |
| Symptoms/effects after eye contact       : Causes serious eye irritation.         Symptoms/effects after ingestion       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available       Information available         SECTION 5: Firefighting measures         Solutable extinguishing media         Suitable extinguishing media         Suitable extinguishing media         Suitable extinguishing media         Solutable extinguishing media         Sittable extinguishing media         Suitable extingu   |  | : May cause respiratory irritation.  |  |  |
| Symptoms/effects after ingestion       : May be harmful if swallowed.         Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available         SECTION 5: Firefighting measures         5.1. Extinguishing media         Symptoms/effects after ingestion         Suitable extinguishing media         Symptoms/effects after ingestion         Suitable extinguishing media         Symptoms/effects after ingestion         Symptoms/effects after ingestion         Symptoms/effects   | Symptoms/effects after skin contact      | : Causes skin irritation.  |  |  |
| Chronic symptoms       : Suspected carcinogen.         4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available         SECTION 5: Firefighting measures         5.1.       Extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture       No         No additional information available   |  | -  |  |  |
| 4.3.       Indication of any immediate medical attention and special treatment needed         No additional information available         SECTION 5: Firefighting media         Suitable extinguishing media      Suitable extin   |  |  |  |  |
| No additional information available         SECTION 5: Firefighting media         Suitable extinguishing media         Suitable extinguishing media         Suitable extinguishing media         Suitable extinguishing media         Special hazards arising from the substance or mixture         No additional information available         5.3.       Advice for firefighters         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection.         Wear recommended personal protective equipment.       Wear recommended personal protective equipment.         SECTION 6: Accidental release measures       6.1.         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | Chronic symptoms                         | : Suspected carcinogen.  |  |  |
| SECTION 5: Firefighting measures         5.1.       Extinguishing media         Suitable extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture         No additional information available  | 4.3. Indication of any immediate medica  | attention and special treatment needed   |  |  |
| 5.1.       Extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture         No additional information available         5.3.       Advice for firefighters         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection.         SECTION 6: Accidental release measures       6.1.         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | No additional information available      |  |  |  |
| Suitable extinguishing media       : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).         5.2.       Special hazards arising from the substance or mixture         No additional information available         5.3.       Advice for firefighters         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection.         SECTION 6: Accidental release measures       6.1.         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | SECTION 5: Firefighting measures         |  |  |  |
| 5.2.       Special hazards arising from the substance or mixture         No additional information available         5.3.       Advice for firefighters         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection.         SECTION 6: Acccidental release measures       6.1.         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | 5.1. Extinguishing media                 |  |  |  |
| No additional information available         5.3. Advice for firefighters         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.         SECTION 6: Accidental release measures       6.1. Personal precautions, protective equipment and emergency procedures         6.1.1. For non-emergency personnel       Emergency procedures         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2. For emergency responders       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2. Environmental precautions       Environmental precautions   | Suitable extinguishing media             | : Water spray, dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).                |  |  |
| 5.3. Advice for firefighters         Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.         SECTION 6: Accidental release measures       6.1. Personal precautions, protective equipment and emergency procedures         6.1.1. For non-emergency personnel       Emergency procedures         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2. For emergency responders       Protective equipment         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2. Environmental precautions       Environmental precautions   | 5.2. Special hazards arising from the su | ostance or mixture   |  |  |
| Firefighting instructions       : Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.         SECTION 6: Accidental release measures       6.1.         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions   |  |  |  |  |
| apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.         Protection during firefighting       : Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.         SECTION 6: Accidental release measures         6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions   | 5.3. Advice for firefighters             |  |  |  |
| Wear recommended personal protective equipment.         SECTION 6: Accidental release measures         6.1. Personal precautions, protective equipment and emergency procedures         6.1.1. For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2. For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2. Environmental precautions   | Firefighting instructions                | apparatus. Do not enter fire area without proper protective equipment, including respiratory     |  |  |
| 6.1.       Personal precautions, protective equipment and emergency procedures         6.1.1.       For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2.       For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | Protection during firefighting           |  |  |  |
| 6.1.1. For non-emergency personnel         Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2. For emergency responders         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2. Environmental precautions   | SECTION 6: Accidental release measures   |  |  |  |
| Emergency procedures       : Avoid breathing vapors, mist, gas. Avoid dust formation.         6.1.2. For emergency responders       Protective equipment         Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2. Environmental precautions   | 6.1. Personal precautions, protective eq | uipment and emergency procedures   |  |  |
| 6.1.2. For emergency responders         Protective equipment         : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2. Environmental precautions  | 6.1.1. For non-emergency personnel       |  |  |  |
| Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | Emergency procedures                     | : Avoid breathing vapors, mist, gas. Avoid dust formation.                                       |  |  |
| Protective equipment       : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".         6.2.       Environmental precautions  | 6.1.2. For emergency responders          |  |  |  |
|  |  |  |  |  |
|  | 6.2. Environmental precautions           |  |  |  |
| Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.  |  |  |  |  |
| 6.3. Methods and material for containment and cleaning up  | 6.3. Methods and material for containme  | ent and cleaning up  |  |  |
| For containment : Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.   | For containment                          | : Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal.     |  |  |

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| 26, 2012 / Rules and Regulations             |  |
|--|--|
| Methods for cleaning up                      | : This material and its container must be disposed of in a safe way, and as per local legislation.   |
| 6.4. Reference to other sections             |  |
| For further information refer to section 13. |  |
| <b>SECTION 7: Handling and storage</b>       |  |
| 7.1. Precautions for safe handling           |  |
| Precautions for safe handling                | : Provide adequate ventilation to minimize dust and/or vapor concentrations.   |
| Hygiene measures                             | : Wash hands and other exposed areas with mild soap and water before eating, drinking or<br>smoking and when leaving work. Handle in accordance with good industrial hygiene and safety<br>practice. |
| 7.2. Conditions for safe storage, inclue     | ding any incompatibilities   |
| Technical measures                           | : Store in a well-ventilated place. Keep container tightly closed.   |
| Storage conditions                           | : Store refrigerated (-5 °C to 5 °C). Protect from light.  |
| 7.3. Specific end use(s)                     |  |
| No additional information available          |  |
| SECTION 8: Exposure controls/per             | sonal protection   |
| 8.1. Control parameters                      |  |
| No additional information available          |  |
| 8.2. Exposure controls                       |  |
| Appropriate engineering controls             | : Wash hands and other exposed areas with mild soap and water before eating, drinking or<br>smoking and when leaving work.   |
| Personal protective equipment                | : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.   |
|  |  |
| Materials for protective clothing            | : Wear suitable protective clothing and gloves.  |
| Hand protection                              | : Wear suitable protective clothing and gloves.  |
| Eye protection                               | : Wear eye protection. Chemical goggles or face shield with safety glasses.  |
| Skin and body protection                     | : Wear suitable protective clothing, gloves and eye/face protection.   |
| Respiratory protection                       | : In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator.   |
| Environmental exposure controls              | : Avoid release to the environment.  |
| <b>SECTION 9: Physical and chemica</b>       | l properties   |
| 9.1. Information on basic physical and       | I chemical properties  |
| Physical state                               | : Solid  |
| Appearance                                   | : Solid  |
| Molecular mass                               | : 306.35 g/mol (Labeled)   |
| Color  | : No data available  |
| Odor   | : No data available  |
| Odor threshold                               | : No data available  |
| рН   | : No data available  |
| Relative evaporation rate (butyl acetate=1)  | : No data available  |
| Melting point                                | : No data available  |
| Freezing point                               | : No data available  |
| Boiling point                                | : No data available  |
| Flash point                                  | : No data available  |
| Auto-ignition temperature                    | : No data available  |
| Decomposition temperature                    | : No data available  |
| Flammability (solid, gas)                    | : No data available  |
| Vapor pressure                               | : No data available  |
| Relative vapor density at 20 °C              | : No data available  |

: No data available

: No data available

: No data available

: No data available

Solubility

Log Pow

Relative density

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| Viscosity, kinematic                                       | : No data available   |
|--|---|
| Viscosity, dynamic   | : No data available   |
| Explosive properties                                       | : No data available   |
| Oxidizing properties                                       | : No data available   |
| Explosion limits   | : No data available   |
| 9.2. Other information                                     |   |
| No additional information available                        |   |
| SECTION 10: Stability and reac                             | tivity  |
| 10.1. Reactivity   |   |
| No additional information available                        |   |
| 10.2. Chemical stability                                   |   |
| Five years after receipt if stored as stated               | in "Storage" section. Re-QC after 5 years.  |
| 10.3. Possibility of hazardous reac                        | tions   |
| No additional information available                        |   |
| 10.4. Conditions to avoid                                  |   |
| No additional information available                        |   |
| 10.5. Incompatible materials                               |   |
| Strong oxidizing agents.                                   |   |
| 10.6. Hazardous decomposition pro                          | oducts  |
| formed under fire conditions: Carbon oxid                  |   |
| SECTION 11: Toxicological info                             | brmation  |
| 11.1. Information on toxicological                         |   |
| Acute toxicity   | : Not classified  |
| Skin corrosion/irritation                                  | : Causes skin irritation.   |
| Skill conosion/initiation<br>Serious eye damage/irritation | : Causes serious eye irritation.  |
| Respiratory or skin sensitization                          | : Not available   |
| Germ cell mutagenicity                                     | : Not available   |
| Carcinogenicity  | : Suspected of causing cancer (if inhaled, if swallowed, in contact with skin, inhalation, oral). |
| Depreductive toxicity                                      | . Net eveileble   |

Reproductive toxicity : Not available

| Specific target organ toxicity – single exposure   | : May cause respiratory irritation. |
|--|-------------------------------------|
| Specific target organ toxicity – repeated exposure | : Not classified                    |

Aspiration hazard : Not classified Potential Adverse human health effects and symptoms : This informati the purposes

Symptoms/effects after inhalation

Symptoms/effects after skin contact

Symptoms/effects after eye contact

Symptoms/effects after ingestion

Chronic symptoms

Construction is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
 May cause respiratory irritation.

: Causes skin irritation.

- : Causes serious eye irritation.
  - : May be harmful if swallowed.
  - : Suspected carcinogen.

| SECTI   | ON 12: Ecological information                    |   |  |
|---------|--|---|--|
| 12.1.   | Toxicity   |   |  |
| Ecology | - general  | : | The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. |
| 40.0    | Description of the second state and state 1996 a |   |  |

| 12.2. Persistence and degradability  |                 |     |
|--|-----------------|-----|
| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) (58562-33-7 (Unlabeled)) |                 |     |
| Persistence and degradability  | Not available.  |     |
| 12.3. Bioaccumulative potential  |                 |     |
| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) (58562-33-7 (Unlabeled)) |                 |     |
| Bioaccumulative potential Not available.                                   |                 |     |
| 15/01/2019   | EN (English US) | 5/7 |

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| 12.4. Mobility in soil   |  |  |
|--|--|--|
| DL-4-METHOXYESTRONE (13,14,15,16,17,18   | 3-13C6, 99%) (58562-33-7 (Unlabeled))  |  |
| Ecology - soil   | Not available.   |  |
| 12.5. Results of PBT and vPvB assessme   | nt   |  |
| No additional information available  |  |  |
| 12.6. Other adverse effects  |  |  |
| Other adverse effects  | : Not available.   |  |
|  |  |  |
| SECTION 13: Disposal consideration   | IS   |  |
| 13.1. Waste treatment methods  |  |  |
| Regional legislation (waste)   | : Waste materials should be disposed of under conditions which meet Federal, State, and local<br>environmental control regulations.                              |  |
| Product/Packaging disposal recommendations                                     | : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. |  |
| Ecology - waste materials  | : Dispose of as unused product.  |  |
| SECTION 14: Transport information  |  |  |
| In accordance with ADR / RID / IMDG / IATA / AI                                | DN   |  |
| 14.1. UN number  |  |  |
| Not applicable   |  |  |
| 14.2. UN proper shipping name  |  |  |
| Not applicable   |  |  |
|  |  |  |
| 14.3. Additional information   |  |  |
| Other information  | : No supplementary information available.  |  |
| Special transport precautions  | : Not dangerous goods.   |  |
|  |  |  |
| Overland transport   |  |  |
| No additional information available  |  |  |
| Transport by sea   |  |  |
| No additional information available  |  |  |
| Air transport  |  |  |
| No additional information available  |  |  |
|  |  |  |
| 14.4. Environmental hazards  |  |  |
| Other information  | : No supplementary information available.  |  |
| 14.5. Special precautions for user   |  |  |
| Special transport precautions  | : Not dangerous goods.   |  |
| 14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code |  |  |
| Not applicable   |  |  |
| SECTION 15: Regulatory information   |  |  |

| 15.1. US Federal regulations   |   |  |  |
|--|---|--|--|
| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) (58562-33-7 (Unlabeled)) |   |  |  |
| SARA Section 302 Threshold Planning<br>Quantity (TPQ)                      | Not subject to reporting requirements of the United States SARA Section 302 |  |  |
| SARA Section 311/312 Hazard Classes  | Immediate (acute) health hazard   |  |  |
| SARA Section 313 - Emission Reporting                                      | Not subject to reporting requirements of the United States SARA Section 313 |  |  |

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### 15.2. International regulations

## CANADA

DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%) (58562-33-7 (Unlabeled))

Listed on the Canadian DSL (Domestic Substances List)

## 15.2.1. National regulations

No additional information available

## 15.3. US State regulations

| DL-4-METHOXYESTRONE (13,14,15,16,17,18-13C6, 99%)(58562-33-7 (Unlabeled)) |  |  |
|---|--|--|
| U.S California - Proposition 65 - Carcinogens List                        | Yes  |  |
| U.S California - Proposition 65 - Developmental<br>Toxicity               | No   |  |
| U.S California - Proposition 65 - Reproductive<br>Toxicity - Female       | No   |  |
| U.S California - Proposition 65 - Reproductive<br>Toxicity - Male         | No   |  |
| State or local regulations  | U.S Pennsylvania - RTK (Right to Know) List<br>U.S New Jersey - Right to Know Hazardous Substance List |  |

# **SECTION 16: Other information**

## Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

### Full text of R-, H- and EUH-phrases:

| Carc. 2       | Carcinogenicity Category 2                                  |
|---------------|---|
|               | <u> </u>  |
| Eye Irrit. 2  | Serious eye damage/eye irritation Category 2                |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2                        |
| STOT SE 3     | Specific target organ toxicity (single exposure) Category 3 |
| H315          | Causes skin irritation                                      |
| H319          | Causes serious eye irritation                               |
| H335          | May cause respiratory irritation                            |
| H351          | Suspected of causing cancer                                 |
| R36/37/38     | Irritating to eyes, respiratory system and skin             |
| R40           | Limited evidence of a carcinogenic effect                   |
| Xi            | Irritant  |

| NFPA health hazard | : 1 - Materials that, under emergency conditions, can cause significant irritation.   |
|--------------------|---|
| NFPA fire hazard   | : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. |
| NFPA reactivity    | : 0 - Material that in themselves are normally stable, even under fire conditions.  |
| Hazard Rating      |   |
| Health             | : 1 Slight Hazard - Irritation or minor reversible injury possible  |
| Flammability       | : 0 Minimal Hazard  |

: 0 Minimal Hazard

CIL Substance SDS

Physical

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product