

Eastman(TM) DMAA

| Vers 2.4 PRD | ion | Revision Date: 06/29/2018 | 15 | DS Number: 0000001076 SCA / EN / 0001 | Date of last issue: 08/24/2014 Date of first issue: 06/10/2011 0037296881 / 0004315961 |
|--------------------|--|------------------------------|-----|---|--|
| SEC | TION 1 | . IDENTIFICATION | | | |
| | Product name | | : | Eastman(TM) DM | AA |
| | Product code | | : | P0150009 | |
| | Manufacturer or supplier's Company name of supplier | | | | al Company |
| | Address | | : | 200 South Wilcox Drive Kingsport TN 37660-5280 | |
| | Telephone | | : | (423) 229-2000 | |
| | Emergency telephone num- ber | | : | CHEMTREC: +1-800-424-9300, +1-703-527-3887 CCI | |
| | Recommended use of the | | hen | nical and restriction | ons on use |
| | Recom | mended use | : | Chemical intermediate | |
| | Restrictions on use | | : | None known. | |

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

| Chemical name | CAS-No. | Concentration (% w/w) |
|----------------------------|-----------|-----------------------|
| N,N-dimethylacetoacetamide | 2044-64-6 | > 80 |
| Water | 7732-18-5 | < 20 |

SECTION 4. FIRST AID MEASURES

| If inhaled | : | Move to fresh air. Treat symptomatically. If symptoms persist, call a physician. |
|-------------------------|---|--|
| In case of skin contact | : | Wash off with soap and water. If symptoms persist, call a physician. |



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|---|------------------------------|----|---|--|--|
| In cas | se of eye contact | : | In the case of cor of water and see | ntact with eyes, rinse immediately with plenty medical advice. | |
| If swallowed | | : | Seek medical adv | vice. | |
| Most important symptoms and effects, both acute and delayed | | : | None known. | | |
| Notes | s to physician | : | Treat symptomati | cally. | |

SECTION 5. FIREFIGHTING MEASURES

| Suitable extinguishing media | : | Carbon dioxide (CO2) Dry chemical Water spray |
|---|---|---|
| Unsuitable extinguishing media | : | Do not use a solid water stream as it may scatter and spread fire. |
| Specific hazards during fire- fighting | : | None known. |
| Further information | : | None known. |
| Special protective equipment for firefighters | : | Wear an approved positive pressure self-contained breathing apparatus in addition to standard fire fighting gear. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protec- : tive equipment and emer- gency procedures | Use personal protective equipment. Local authorities should be advised if significant spillages cannot be contained. | |
|---|---|--|
| Environmental precautions : | Avoid release to the environment. | |
| Methods and materials for : containment and cleaning up | Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). | |

SECTION 7. HANDLING AND STORAGE

| Advice on protection against fire and explosion | : | None known. |
|---|---|--|
| Advice on safe handling | : | Use only in area provided with appropriate exhaust ventilation. Wash thoroughly after handling. |
| Conditions for safe storage | : | Keep tightly closed. |



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| SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION | | | | | |

| Components with workplace control parameters Contains no substances with occupational exposure limit values. | | | | | |
|---|------|---|--|--|--|
| Engineering measures | : | Ensure adequate ventilation. | | | |
| Personal protective equipm | nent | | | | |
| Respiratory protection | : | Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. | | | |
| Hand protection | | | | | |
| Remarks | : | Wear suitable gloves. | | | |
| Eye protection | : | Safety glasses | | | |
| Protective measures | : | Remove respiratory and skin/eye protection only after va- pours have been cleared from the area. Ensure that eye flushing systems and safety showers are located close to the working place. Use personal protective equipment as required. | | | |
| Hygiene measures | : | Handle in accordance with good industrial hygiene and safety practice. | | | |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | : | liquid |
|-----------------------------|---|------------------------------|
| Colour | : | yellow |
| Odour | : | ammoniacal |
| Odour Threshold | : | not determined |
| рН | : | not determined |
| Melting point/range | : | not determined |
| Boiling point/boiling range | : | 100 °C |
| Flash point | : | 122 °C |
| | | Method: Cleveland open cup |
| Evaporation rate | : | not determined |
| Self-ignition | : | 338 °C Method: ASTM D2155 |



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|--------------------|----------------|--|-----|--|--|
| | | explosion limit / Upper ability limit | : | not determined | |
| | | explosion limit / Lower ability limit | : | not determined | |
| | Vapou | r pressure | : | not determined | |
| | Relativ | e vapour density | : | not determined | |
| | Relativ | e density | : | 1.06 (24 °C) | |
| | Solubil Wa | ity(ies) ter solubility | : | completely solub | le |
| | | on coefficient: n- I/water | : | Pow: 0.27 log Pow: -0.58 | |
| | Auto-ig | nition temperature | : | not determined | |
| | Decom | position temperature | : | Method: DTA No exotherm to 4 | 450°C |
| | Viscos Viso | ity cosity, dynamic | : | not determined | |
| | Vise | cosity, kinematic | : | not determined | |
| | Explos | ive properties | : | No data available | 9 |
| | Oxidizi | ng properties | : | No data available | e |

SECTION 10. STABILITY AND REACTIVITY

| Reactivity | : | None reasonably foreseeable. |
|---|---|---|
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reac- tions | : | Stable None known. |
| Conditions to avoid | : | None known. |
| Incompatible materials | : | Strong oxidizing agents |
| Hazardous decomposition products | : | Carbon dioxide (CO2) Carbon monoxide |



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| | | | | | |
| SECTIO | N 11. TOXICOLOGICAL | INF | ORMATION | | |
| Acu | te toxicity | | | | |
| Not | classified based on avai | lable | information. | | |
| Pro | duct: | | | | |
| Acu | te oral toxicity | : | Remarks: None |). | |
| Acu | te inhalation toxicity | : | Remarks: No si | gnificant adverse effects were reported | |
| Acu | te dermal toxicity | : | Remarks: No significant adverse effects were reported | | |
| Con | nponents: | | | | |
| N,N | -dimethylacetoacetami | de: | | | |
| Acu | te oral toxicity | : | |): > 3,200 mg/kg est dose tested) | |
| | | | | use): > 3,200 mg/kg est dose tested) | |
| Acu | te inhalation toxicity | : | LC50 (Rat): > 3 Exposure time: Remarks: (high | | |
| Skir | n corrosion/irritation | | | | |
| Not | classified based on avail | lable | information. | | |
| | duct: | | | | |
| Ren | narks | : | No data availab | le | |
| <u>Con</u> | nponents: | | | | |
| N,N | -dimethylacetoacetami | de: | | | |
| | cies | : | Rabbit | | |
| Exp Res | osure time ult | : | 24 h slight | | |
| | | | ŭ | | |

| Species | : | Guinea pig |
|---------------|---|------------|
| Exposure time | : | 24 h |
| Result | : | slight |

Serious eye damage/eye irritation

Not classified based on available information.

Product:

| o data available |
|------------------|
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|-----------------------|---|--|--|
| <u>Com</u> | oonents: | | |
| N,N-c | limethylacetoacetan | nide: | |
| Speci Resul | | : Rabbit : slight | |
| Resp | iratory or skin sens | itisation | |
| - | sensitisation | - 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1 | |
| | assified based on av | | |
| • | iratory sensitisation assified based on av | | |
| Prod | uct: | | |
| Rema | arks | : No data availat | ble |
| <u>Com</u> | oonents: | | |
| | limethylacetoacetan | nide: | |
| Speci Resul | | : Guinea pig : none | |
| | cell mutagenicity assified based on av | ailable information | |
| | nogenicity | | |
| | assified based on av | ailable information. | |
| Produ | | | |
| Rema | arks | : This information | n is not available. |
| - | oductive toxicity assified based on av | ailable information | |
| Prod | | | |
| | | : Remarks: No d | ata available |
| STOT | - single exposure | | |
| Not cl | assified based on av | ailable information. | |
| Produ | | | |
| Rema | Irks | : No data availat | ble |
| | - repeated exposur assified based on ava | | |
| Produ | | | |
| Rema | | : No data availat | |



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|--|--|-----------------|---|---|
| • | ation toxicity assified based on availa | able | information. | |
| Produ | uct: | | | |
| No as | piration toxicity classific | atio | n | |
| Inform | nation on likely routes | of | exposure | |
| <u>Produ</u> | uct: | | | |
| Inhala | ation | : | Remarks: None I | known. |
| Skin o | contact | : | Remarks: None I | known. |
| Eye c | ontact | : | Remarks: None I | known. |
| Inges | tion | : | Remarks: None I | known. |
| Furth | er information | | | |
| Produ | <u>uct:</u> | | | |
| Rema | arks | : | None known. | |
| | 12. ECOLOGICAL INF | ORI | MATION | |
| Ecoto | 12. ECOLOGICAL INFO | ORI | MATION | |
| Ecoto <u>Com</u> p | oxicity | | MATION | |
| Ecoto <u>Comp</u> N,N-d | oxicity oonents: | | | |
| Ecoto <u>Comp</u> N,N-d | oxicity <u>oonents:</u> limethylacetoacetamid | | LC50 (Pimephale Exposure time: 9 | 96 h ales promelas (fathead minnow)): > 977.74 |
| Ecoto Comp N,N-d Toxic | oxicity <u>oonents:</u> limethylacetoacetamid | le: : | LC50 (Pimephale Exposure time: 9 NOEC: (Pimepha mg/l Exposure time: 9 | 96 h ales promelas (fathead minnow)): > 977.74 96 h > 1,005 mg/l |
| Ecoto Comp N,N-d Toxic | oxicity oonents: limethylacetoacetamid ity to fish | le: : | LC50 (Pimephale Exposure time: 9 NOEC: (Pimepha mg/l Exposure time: 9 EC50 (daphnid): | 96 h ales promelas (fathead minnow)): > 977.74 96 h > 1,005 mg/l 8 h): > 1,005 mg/l |
| Ecoto Comp N,N-d Toxici | oxicity oonents: limethylacetoacetamid ity to fish | le: : | LC50 (Pimephale Exposure time: 9 NOEC: (Pimepha mg/l Exposure time: 9 EC50 (daphnid): Exposure time: 4 NOEC: (daphnid) | 96 h ales promelas (fathead minnow)): > 977.74 96 h > 1,005 mg/l 8 h): > 1,005 mg/l |
| Ecoto Comp N,N-d Toxici Toxici aquat | oxicity oonents: limethylacetoacetamid ity to fish ity to daphnia and other ic invertebrates | le: : | LC50 (Pimephale Exposure time: 9 NOEC: (Pimepha mg/l Exposure time: 9 EC50 (daphnid): Exposure time: 4 NOEC: (daphnid) | 96 h ales promelas (fathead minnow)): > 977.74 96 h > 1,005 mg/l 8 h): > 1,005 mg/l |
| Ecoto Comp N,N-d Toxici Toxici aquat | oxicity ponents: limethylacetoacetamid ity to fish ity to daphnia and other ic invertebrates stence and degradabil | le: : ity | LC50 (Pimephale Exposure time: 9 NOEC: (Pimepha mg/l Exposure time: 9 EC50 (daphnid): Exposure time: 4 NOEC: (daphnid) | 96 h ales promelas (fathead minnow)): > 977.74 96 h > 1,005 mg/l 8 h): > 1,005 mg/l |
| Ecoto Comp N,N-d Toxici Toxici Aquat Persi Comp N,N-d Bioch | oxicity ponents: limethylacetoacetamid ity to fish ity to daphnia and other ic invertebrates stence and degradabil ponents: | le: : ity | LC50 (Pimephale Exposure time: 9 NOEC: (Pimepha mg/l Exposure time: 9 EC50 (daphnid): Exposure time: 4 NOEC: (daphnid) | ales promelas (fathead minnow)): > 977.74 96 h > 1,005 mg/l 8 h): > 1,005 mg/l 8 h |



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|-----------------------|--|--|--|
| Cher (COI | mical Oxygen Demand D) | : 791 mg/g | |
| | accumulative potential | | |
| | ility in soil lata available | | |
| | er adverse effects lata available | | |
| SECTION | 13. DISPOSAL CONS | DERATIONS | |
| - | oosal methods te from residues | : Dispose c | f in accordance with local regulations. |
| SECTION | 14. TRANSPORT INFO | ORMATION | |
| Inter | national Regulations | | |
| | A-DGR regulated as a dangerou | s good | |
| | G-Code regulated as a dangerou | s good | |
| | applicable for product as | - | f MARPOL 73/78 and the IBC Code |
| Nati | onal Regulations | | |
| TDG Not i | regulated as a dangerou | s good | |
| SECTION | 15. REGULATORY IN | FORMATION | |
| The CH I | • • | • | rted in the following inventories: ventory, or in compliance with the inventory |
| DSL | | : All compo | nents of this product are on the Canadian DSL |
| AICS | 3 | : On the inv | ventory, or in compliance with the inventory |
| ENC | S | : On the inv | ventory, or in compliance with the inventory |
| ISHL | - | : On the inv | ventory, or in compliance with the inventory |
| KEC | I | : On the inv | ventory, or in compliance with the inventory |
| PICO | cs | : On the inv | ventory, or in compliance with the inventory |
| | | | |



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| IECSC | | : On the inventory | y, or in compliance with the inventory |
| TSCA | | : On TSCA Inven | tory |

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC -No Observed (Adverse) Effect Concentration: NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate: NOM - Official Mexican Norm: NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS -Workplace Hazardous Materials Information System

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific



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material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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