

**Safety Data Sheet**

**According to 1907/2006/EC, Article 31**

**Product: Designer Radiator Spray Paint**

**Date: January 2024**

|  |
| --- |
| **Section 1 – Identification of the substance/mixture and of the company/undertaking**  |
| 1.1 Product identifier for industrial, professional and consumer only Trade name: Designer Radiator Spray Paint 1.2 Relevant identified users of the substance or mixture and uses advised against: surface coating Application of the substance/the mixture: surface coating 1.3 Details of the supplier of the safety data sheet: Innov8 Coatings Ltd Eclipse Farm Martin Moore Metheringham Lincolnshire LN4 3BQ Email: sales@innov8coatings.co.uk  Further information available from: sales@innov8coatings.co.uk 1.4 Emergency telephone number: 01526 378997  |

|  |
| --- |
| **Section 2 – Hazards identification**  |
| 2.1 Classification of the substance or mixture: \* Classification according to Regulation (EC) No 1272/2008 Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated. STOT SE3 H336 May cause drowsiness or dizziness  |
| 2.2 Label elements \* Labelling according to Regulation (EC) No. 1272/2008 This product is classified and labelled according to the CLP regulation.  • Hazard pictograms  GHS02 GHS07   |
| * Signal word Danger

Hazard-determining components of labelling: Butyl ethanoate * Hazard statements

H222 – H229 Extremely flammable aerosol. Pressurised container: May burst if heated. H336 May cause drowsiness or dizziness. * Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources P211 Do not spray on an open flame or other ignition source P251 Do not pierce or burn, even after use P405 Store locked up P410-P412 Protect from sunlight. Do not expose to temperatures exceeding 50 ° C/122 ° F P501 Dispose of content/container in accordance with local/regional/national international regulations. **Additional information:** Contains reaction mass of .alpha.-3(3-(2H – benzotriazol-2-yl)-5-tert-butyl-4-hydroxphenyl)propionyl-omega- hydroxpoly(oxyethylene) and .alpha.-3(3-(2H-benzotriazol-2-yl)-5tert-butyl-4hydroxyphenyl)propionyl-.omega.-3(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4hydoxyphenyl)propionyloxypoly(oxyethylene), Reaction mass of bis (1,2,2,6,6-pentamethyl-4piperidyl) sebacate and methyl 1,2,2,6,6 pentamethyl-4-piperdyl sebacate. May produce an allergic reaction. Buildup of explosive mixtures possible without sufficient ventilation. 2.3 **Other hazards** **\*Results of PBT and vPvB assessment** * **PBT:** Not applicable
* **vPvB:** Not applicable
 |

|  |  |
| --- | --- |
| **Section 3: Composition/information on ingredients** * 3.2 Chemical characterisation: Mixtures
* Description: Mixture of substances listed below with non-hazardous additions
 |   |
|  • Dangerous components:  |   |
| CAS: 115-10-6 EINECS: 204-065-8 Reg.nr: 01-2119472128-37  | Dimethyl ether • Flam.Gas 1A, H220: Press. Gas (Comp), H280  | >50-≤100%  |
| CAS: 123-86-4 EINECS: 204-658-1 Reg.nr: 01-2119485493-29-XXXX  | Butyl ethanoate  • Flam.Liq 3, H226; STOT SE3, H336  | >10-≤25%  |
| CAS: 78-93-3 EINECS: 201-159-0  | Methyl ethyl ketone • Flam.Liq 2, H225; Eye Irrit 2, H319; STOT SE3, H336  | >2.5-≤10%  |
|  |  |  |
| 2-methoxy-1methylethyl acetate  • Flam.Liq 3, H226 STOT SE3, H336  | >2.5-≤10%  |
| ELINCS: 400-830-7 Reg.nr.01-0000015075-76-0017  | Reaction mass of alpha.-3-(3-(2H-bnzotriazol-2yl)-5-trt-butyl-4-hydroxphenyl) propionyl-omegahydorxpoly(oxyethylene) and alpha -3-(3-(2Hbenzotriazol-2yl)-5-tert-butyl-4-hydroxphenyl) propionyl-omega.-3-(3-(2H-benzotriazol-2-yl)-5tert-butyl-4-hydroxyphenyl) propionyloxypoly(oxyethylene)  | ≤1%  |
|   | Aquatic Chronic 2, H411; Skin Sens. 1, H317  |   |
| Reg.nr: 01-2119491304-40-0000  | Reaction mass of bis (1,2,2,6,6, pentamethyl-4piperidyl) sebacate and methyl 1,2,2,6,6 pentamethyl-4-piperdyl sebacate  |   |
|   | Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens 1, H317  |   |

 • Additional information: for the wording of the listed hazards phrases refer to section 16.

|  |
| --- |
| **Section 4: First aid measures**  |
| 4.1 Description of first aid measures * After inhalation: supply fresh air; consult doctor in case of complaints
* After eye contact: rinse opened eye for several minutes under running water
* After swallowing: do not induce vomiting: call for medical help immediately and show safety datasheet or label
	1. Most important symptoms and effects, both acute and delayed: no further relevant information available
	2. Indication of any immediate medical attention and special treatment needed: treat symptomatically
 |

|  |
| --- |
| **Section 5: Firefighting measures**  |
| 5.1 Extinguishing media * Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. * 1. Special hazards arising from the substance or mixture No further relevant information available
	2. Advice for firefighters
* Protective equipment: put on breathing apparatus
 |

# Section 6: Accidental release measures

|  |
| --- |
| 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persona away 6.2 Environmental precautions: do not allow to enter sewers/surface or ground water 6.3 Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13 Ensure adequate ventilation. 6.4 Reference to other sections See section 7 for information on safe handling See section 8 for information on personal protection equipment See section 13 for disposal information  |

|  |
| --- |
| **Section 7: Handling and storage**  |
| 7.1 Precautions for safe handling Ensure good ventilation/extraction at the workplace Hygiene measures: Wash hands before breaks and at the end of workday Information about fire – and exposition protection: Do not spray onto a naked flame or any incandescent material Keep ignition sources away – do not smoke Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C ie electric lights. Do not pierce or burn, even after use. 7.2 Conditions for safe storage, including any incompatibilities \* Storage: \* Requirements to be met by storerooms and receptacles: Observe official regulations on storing packaging with pressurised containers. * + Information about storage in one common storage facility: not required
	+ Further information about storage conditions:

Keep receptacle tightly sealed and in a well ventilated place. Keep away from heat. 7.3 Specific and use(s) No further relevant information available.  |

|  |
| --- |
| **Section 8: Exposure controls/personal protection**  |
| Additional information about design of technical facilities: No further data; see item 7 8.1 Control parameters \* Ingredients with limit values that require monitoring at the workplace: 115-10-6 dimethyl ether WEL short term value: 958 mg/m3 500 ppm Long term value: 766 mg/m3, 400 ppm 123-86-4 Butyl ethanoate WEL short term value: 966 mg/m3, 200 ppm Long term value; 724 mg/m3, 150 ppm 78-93-3 methyl ethyl ketone  |

|  |
| --- |
| WEL short term value: 899 mg/m3, 300 ppm Long term value: 600 mg/m3, 200 ppm Sk, BMGV 108-65-6 2-methoxy-1-methylethyl acetate WEL short term value: 548 mg/m3 100 ppm Long term value: 274 mg/m3 50 ppm Sk  |
| DNELs  |
| 115-10-6 dimethyl ether  |
| Inhalative  | DNEL  | 471 mg/m3 (Con) 1894 mg/m3 (Id  |
| 123-86-4 Butyl ethanoate  |
| Oral  | DNEL  | 2 mg/day (Con)  |
| Dermal  | DNEL  | 6 mg/day (Con 11 mg/day (Ind)  |
| Inhalative  | DNEL  | 35.7 mg/m3 (Con 300 mg/m3 (Ind)  |
| 78-93-3 methyl ethyl ketone  |
| Oral  | DNEL  | 31 mg/day (Con)  |
| Dermal  | DNEL  | 412 mg/day (Con) 1,161 mg/day (Ind)  |
| Inhalative  | DNEL  | 106 mg/m3 (Con) 600 mg/m3 (Ind)  |
| 108-65-6 2-methoxy-1-methylethyl acetate  |
| Oral  | DNEL  | 1.67 mg/day (Con)  |
| Dermal  | DNEL  | 54.8 mg/day (Con) 153.5 mg/day (Ind)  |
| Inhalative  | DNEL  | 33 mg/m3 (Con) 275 mg/m3 (Ind)  |
| Reaction of mass of .alpha.-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)proionylomega.-hydroxypoly(oxyethylene) and .alpha.-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4hydroxphenyl) propionyl-.omega-3(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4hydroxphenyl)propionyloxypoly(oxyethylene)  |
| Oral  | DNEL  | 0.025 mg/day (Con  |
| Dermal  | DNEL  | 0.25 mg/day (Con) 0.5 mg/day (Wor)  |
| Inhalative  | DNEL  | 0.085 mg/m3 (Con) 0.35 mg/m3 (Wor)  |
| Reaction mass of bis (1,2,2,6,6,-pentamethyl-4-piperidy)sebacate and methyl 1,2,2,6,6, pentamethyl-4-piperdyl sebacate  |
| Oral  | DNEL  | 0.5 mg/day (Con)  |
| Dermal  | DNEL  | 1. mg/day (Con)
2. mg/day (Ind)
 |
| Inhalative  | DNEL  | 0.87 mg/m3 (Con) 3.53 mg/m3 (Ind)  |
| PNECs CAS No. 123-86-4 Butyl Acetate Freshwater: 0.18 mg/1 Marine water: 0.018 mg/l Fresh water sediment: 0.981 mg/kg Marine sediment: 0.0981 mg/kg Soil: 0.0903 mg/kg STP (sewage treatment plant): 35.6 mg/l Intermittent use/release: 0.36 mg/l  |
| Ingredients with biological limit values:  |
| 78-93-3 methyl ethyl ketone  |
| BMGV  | 70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one  |
| Additional information: The lists valid during the making were used as basis 8.2 Exposure controls * Personal protective equipment
* General protective and hygiene measures: wash hands before breaks and at the end of work \* Respiratory protection: when spraying the product, use a respiratory protective device \* Protection of hands:

Not required * + The glove material has to be impermeable and resistant to the product/the substance/the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
	+ Eye protection: Tight safety goggles
 |

|  |
| --- |
| **Section 9: Physical and chemical properties**  |
| 9.1 Information on basic physical and chemical properties \* General information \* Appearance: Form: aerosol Colour: according to product specification * Odour: characteristic
* Odour threshold: not determined
 |
|  • PH-value: not determined  |
|  • Change in condition Melting point/freezing point: undetermined  |
|  • Initial boiling point and boiling range: -24.9°C  |
|  • Flash point: -42°C  |
| •  | Flammability (sold, gas): not applicable  |
| •  | Ignition temperature: 315°C  |
| •  | Decomposition temperature: not determined  |
| •  | Auto-ignition temperature: product is not self igniting  |
| •  | Explosive properties: heating may cause an explosion  |
| •  | Explosion limits:  |
| •  | Lower: 1.2 Vol %  |
| •  | Upper: 8.6 Vol %  |
| •  | Vapour pressure at 20°C: 5,200 hPa  |
| •  | Density at 20°C: 0.766 g/cm3  |
| •  | Relative density: not determined  |
| •  | Vapour density: not determined  |
| •  | Evaporation rate: not applicable  |
| •  | Solubility in/miscibility with water: Not miscible  |
| •  | Partition coefficient: n-octanol/water: not determined  |
| •  | Viscosity:  |
| •  | Dynamic: not determined  |
| •  | Kinematic: not determined  |
| •  | Solvent content:  |
| •  | Organic solvents: 88.0%  |
| •  | Water: 0.1%  |
| •  | Solids content: 11.9%  |

|  |
| --- |
| **Section 10: Stability and reactivity** 10.1 Reactivity no further relevant information available 10.2 Chemical stability Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications 10.3 Possibility of hazardous reactions No dangerous reactions known 10.4 Condition to avoid No further relevant information available 10.5 Incompatible materials: No further relevant information available 10.6 Hazardous decomposition products: No dangerous decomposition products when stored and handled correctly  |

|  |
| --- |
| **Section 11: Toxicological Information** 11.1 Information on toxicological effects \* Acute toxicity based on available data, the classification criteria are not met  |
| LD/LC50 values relevant for classification  |
| 115-10-6 dimethyl ether  |
| Inhalative  | LC50/4 h  | 164,000 mg/l (rat)  |
| 123-86-4 Butyl ethanoate  |
| Oral  | LD50  | 10,760 mg/kg (rat)  |
| Dermal  | LD50  | 14,112 mg/kg (Rab)  |
| Inhalative  | LC50/4 h  | 23.4 mg/l (Rat)  |
| 78-93-3 methl ethyl ketone  |
| Oral  | LD50  | 3,460 mg/kg (Rat)  |
| Dermal  | LD50  | 5,000 mg/kg (Rab)  |
| 108-65-6-2 methoxy-1-methlethyl acetate  |
| Oral  | LD50  | >5,000 mg/kg (rat)  |
| Dermal  | LD50  | 5,000 mg/kg (Rat)  |
| Inhalative  | LC50/4 h  | >10.8 mg/l (Rat)  |
| Reaction mass of .alpha.-3-(3-(2H-benzotriazol-2-l)-5-tert-butyl-4-hydroxyphenyl) propionylomega.-hydroxpoly(oxyethylen) and .alpha.-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4hydroxyphenyl) propionyl-.omega -3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxphenyl) propionyloxpoly(oxyethylene)  |
| Oral  | LD50  | >5,000 mg/kg (Rat)  |
| Dermal  | LD50  | >2,000 mg/kg (Rat)  |
| Inhalative  | LC50/4 h  | >5.8 mg/l (Rat)  |
| Reaction mass of bis (1,2,2,6,6,-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6, pentamethyl-4 piperdyl sebacate  |
| Oral  | LD50  | 3,230 mg/kg (Rat)  |
| * Primary irritant effect:
* Skin corrosion/irritation based on available data, the classification criteria are not met.
* Serious eye damage/irritation based on available data, the classification criteria are not met.
* Respiratory or skin sensitisation based on available data, the classification criteria are not met.
* CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
* Germ cell mutagenicity based on available data, the classification criteria are not met.
* Carcinogenicity based on available data, the classification criteria are not met.
* Reproductive toxicity based on available data, the classification criteria are not met.
* STOT-single exposure

May cause drowsiness or dizziness * STOS-repeated exposure based on available data, the classification criteria are not met
* Aspiration hazard based on available data, the classification criteria are not met
 |

|  |
| --- |
| **Section 12: Ecological information** 12.1 Toxicity \* Aquatic toxicity: Acute Fish toxicity n-Butyl acetate LC50 18 mg/l  |
| Species: Pimephales promleas (fathead minnow) Exposure duration: 96 h Chronic Fish toxicity n-Butyl acetate No data available Acute toxicity for daphnia n-Butyl acetate EC50 44 mg/l Species: Daphnia (water flea) Exposure duration: 48 hours  Chronic toxicity to daphnia n-Butyl acetate NOEC 23 mg/l Species: Daphnia magna (water flea) Exposure duration: 21 d Method: OECD Test Guideline 211  Acute toxicity for algae n-Butyl acetate EC50 675 mg/l Species: Scenedesmus quadricauda (Green algae) Exposure duration: 72 h  Acute bacterial toxicity EC50 356 mg/l Species: activated sludge Exposure duration: 40 h  12.2 Persistence and degradability: no further relevant information available 12.3 Bioaccumulative potential: no further relevant information available 12.4 Mobility in soil: no further relevant information available \* Additional ecological information: * General notes:

Water hazard class 2 (German regulations) (self-assessment); hazardous for water. Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. 12.5 Results of PBT and uPvB assessment * PBT: Not applicable
* uPvB: Not applicable

12.6 Other adverse effects No further relevant information available  |

# Section 13: Disposal consideration

|  |
| --- |
| 13.1 Waste treatment methods \* Recommendation Must not be disposed of together with household garbage. Do not allow product to reach sewage system. * Uncleaned packaging:
* Recommendation: Disposal must be made according to official regulations
 |

|  |
| --- |
| **Section 14: Transport information**  |
| 14.1 UN-Number * ADR, IMDG, IATA UN1950

14.2 UN proper shipping name * ADR 1950 Aerosols
* IMDG Aerosols
* IATA Aerosols, flammable

14.3 Transport hazard class(es) * ADR

Class 2 5F Gases * + - Label 2.1

IMDG, IATAClass 2.1 * + - Label 2.1

14.4 Packing group * ADR, IMDG, IATA Void
	1. Environmental hazards Not applicable
	2. Special precautions for user Warning: Gases
* Hazard identification number (Kemler code) -
* EMS Number: F-D-S-U
* Stowage code: SW1 protected from heat sources

 SW22 for AEROSOLS with a max capacity of  1 litre: Category A for AEROSOLS with a  Capacity above 1 litre; Category B for  WASTE AEROSOLS: Category C: Clear of  Living quarters  • Segregation Code: SG69 for AEROSOLS with a max capacity of  1 litre: Segregation as for class 9. Stow  “separated from” class 1 except for division  1.4. For AEROSOLS with a capacity above  1 litre: Segregation for the appropriate  Subdivision of class 2 for WASTE AEROSOLS Segregation as for the appropriate sub- Division of class 2.  |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable  |
| Transport Additional Information: * ADR 1 L
* Limited quantities (LQ) -
* Excepted quantities (EQ) Code E0

 Not permitted as Excepted Quantity * Transport category 2
* Tunnel restriction code D
* IMDG
* Limited quantities (LQ) 1 L
* Excepted quantities (EQ) Code E0

 Not permitted as Excepted Quantity   |
| UN “Model Regulation”: UN1950 AEROSOLS, 2.1  |

|  |
| --- |
| **Section 15: Regulatory Information** 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  * Directive 2012/18/EU
* Named dangerous substances – ANNEX 1 None of the ingredients is listed
* Seveso category P3a FLAMMABLE AEROSOLS
* Quantifying quantity (tonnes) for the application of lower-tier requirements 150 t
* Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
* REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
 |
| DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II  |
| None of the ingredients is listed  |
| National Regulations:  * Technical instructions (air):

 Class Share in % NK 88.0  * Waterhazard class: Water hazard class 2 (self-assessment): hazardous for water.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.  |

# Section 16: Other information

This information is based on our present knowledge, however this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Full text of H-Statements referred to under sections 2 and 3:

|  |
| --- |
| H220 Extremely flammable gas H225 Highly flammable liquid and vapour H226 Flammable liquid and vapour H280 Contains gas under pressure; may explode if heated H317 May cause an allergic skin reaction H319 Causes serious eye irritation H336 May cause drowsiness or dizziness H400 Very toxic to aquatic life H410 Very toxic to aquatic life with lasting effects H411 Toxic to aquatic life with long lasting effects  Department issuing SDS: Product safety department : Laboratory Abbreviations and acronyms: ADR: Accord europeen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No Effect Level (REACH) PNEC: Predicted No Effect Concentration (REACH) LC50: Lethal concentraction 50% LD50: Lethal dose 50% PBT: Persistent, Bioaccumulative and Toxic uPvB: very Persistent and very Bioaccumulative Flam Gas 1A: Flammable Gases – Category A Aerosol 1: Aerosols – Category 1 Press. Gas (Comp): Gases under pressure – Compressed gas Flam Liq 2: Flammable liquids – Category 2 Flam Liq 3: Flammable liquids – Category 3 Eye Irrit 2: Serious eye damage/eye irritation – Category 2 Skin Sens, 1: Skin sensitisation – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Aquatic Acute 1: Hazardous to the aquatic environment – acute aquatic hazard – Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment – long term aquatic hazard – Category 1 Aquatic Chronic 2 – Hazardous to the aquatic environment – long term aquatic hazard – Category 2  |

March 2021