



SAFETY DATA SHEET

RADIATOR ENAMEL SATIN AEROSOL

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1. Product identifier

Product name : RADIATOR ENAMEL SATIN AEROSOL

1.2. Relevant identified uses of the substance or mixture and uses advised against

Product use : Aerosol.

1.3. Details of the supplier of the safety data sheet

ICI Paints AkzoNobel,
Wexham Road,
Slough,
Berkshire,
SL2 5DS, U.K.
Tel.: +44 (0) 333 222 71 71
www.hammerite.co.uk

e-mail address of person responsible for this SDS : hammerite.advice@akzonobel.com

1.4 Emergency telephone number

Telephone number : Emergency Telephone : Slough +44 (0) 1753 550000

Version : 1

Date of previous issue : No previous validation.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aerosol 1, H222, H229

Eye Irrit. 2, H319

STOT SE 3, H336 (Narcotic effects)

Ingredients of unknown toxicity : 0%

Ingredients of unknown ecotoxicity : 0%

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

SECTION 2: Hazards identification

- Classification** : F+; R12
Xi; R36
R66, R67
- Physical/chemical hazards** : Extremely flammable.
- Human health hazards** : Irritating to eyes. Repeated exposure may cause skin dryness or cracking.
Vapours may cause drowsiness and dizziness.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2. Label elements**Hazard pictograms** :

Signal word : Danger

Hazard statements : H222 - Extremely flammable aerosol.
H319 - Causes serious eye irritation.
H336 - May cause drowsiness or dizziness.
H229 - Pressurized container: may burst if heated.

Precautionary statements

- General** : P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.
- Prevention** : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P262 - Do not get in eyes, on skin, or on clothing.
P251 - Do not pierce or burn, even after use.
- Response** : P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER or physician if you feel unwell.
- Storage** : P410 - Protect from sunlight.
P412 - Do not expose to temperatures exceeding 50 °C/122 °F.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national or international regulations.
- Hazardous ingredients** : acetone
- Supplemental label elements** : Contains phthalic anhydride and 2-butanone oxime. May produce an allergic reaction. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

2.3. Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

: Mixture

Product/ingredient name	Identifiers	% (w/w)	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
acetone	EC: 200-662-2 CAS: 67-64-1 Index: 606-001-00-8	>=25 - <35	F; R11 Xi; R36 R66, R67	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 (Narcotic effects)	[1] [2]
Petroleum gases, liquefied	EC: 270-704-2 CAS: 68476-85-7 Index: 649-202-00-6	>=25 - <35	F+; R12	Flam. Gas 1, H220 Press. Gas, H280	[2]
Naphtha (petroleum), hydrotreated heavy	REACH #: 01-2119463258-33 EC: 265-150-3 CAS: 64742-48-9 Index: 649-327-00-6	>=15 - <20	R10 Xn; R65 R66, R67	Flam. Liq. 3, H226 STOT SE 3, H336 (Narcotic effects) Asp. Tox. 1, H304	[1] [2]
phthalic anhydride	EC: 201-607-5 CAS: 85-44-9 Index: 607-009-00-4	>=0,1 - <1	Xn; R22 Xi; R41, R37/38 R42/43	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 (Respiratory tract irritation)	[1] [2]
2-butanone oxime	REACH #: 01-2119539477-28 EC: 202-496-6 CAS: 96-29-7 Index: 616-014-00-0	>=0,1 - <1	Carc. Cat. 3; R40 Xn; R21 Xi; R41 R43 See Section 16 for the full text of the R-phrases declared above.	Acute Tox. 4, H312 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351 See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1. Description of first aid measures****General**

: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Eye contact

: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation

: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact

: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

SECTION 4: First aid measures

- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

There are no data available on the mixture itself. The mixture has been assessed following the EC 1272/2008 regulation and classified for toxicological hazards accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains phthalic anhydride, 2-butanone oxime. May produce an allergic reaction.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures**5.1. Extinguishing media**

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO₂, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3. Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2. Environmental precautions** : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

- 6.3. Methods and material for containment and cleaning up** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

- 6.4. Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

- 7.1 Precautions for safe handling** : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. Mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type. Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.
- Information on fire and explosion protection**
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

- 7.2 Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations.
- Notes on joint storage**
Keep away from: oxidising agents, strong alkalis, strong acids.
- Additional information on storage conditions**
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

SECTION 7: Handling and storage**Seveso II Directive - Reporting thresholds (in tonnes)****Danger criteria**

Category	Notification and MAPP threshold	Safety report threshold
P3a: Flammable aerosols containing flammable gases or flammable liquids	150	500
C8: Extremely flammable (R12 or any flammable maintained at temperature > boiling point)	10	50

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker or exposure or environmental releases.

8.1 Control parameters**Occupational exposure limits**

Product/ingredient name	Exposure limit values
acetone	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 3620 mg/m ³ 15 minutes. STEL: 1500 ppm 15 minutes. TWA: 1210 mg/m ³ 8 hours. TWA: 500 ppm 8 hours.
Petroleum gases, liquefied	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 2180 mg/m ³ 15 minutes. STEL: 1250 ppm 15 minutes. TWA: 1750 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours.
Naphtha (petroleum), hydrotreated heavy	EU OEL (Europe). Notes: Suppliers information TWA: 1200 mg/m ³ Form: Vapour TWA: 197 ppm Form: Vapour
phthalic anhydride	EH40/2005 WELs (United Kingdom (UK), 12/2011). Skin sensitiser. Inhalation sensitiser. STEL: 12 mg/m ³ 15 minutes. TWA: 4 mg/m ³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Use safety eyewear designed to protect against splash of liquids.

Skin protection**Hand protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves : For prolonged or repeated contact use protective gloves. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred. Skin should be washed after contact.

Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms. Recommended gloves: Viton® or Nitrile

Breakthrough Time: 480 min

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

Respiratory protection : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

OLD LEAD-BASED PAINTS:

When surfaces are to be prepared for painting, account should be taken of the age of the property and the possibility that lead-pigmented paint might be present. There is a possibility that ingestion or inhalation of scrapings or dust arising from the preparation work could cause health effects. As a working rule you should assume that this will be the case if the age of the property is pre 1960.

Where possible wet sanding or chemical stripping methods should be used with surfaces of this type to avoid the creation of dust. When dry sanding cannot be avoided, and effective local exhaust ventilation is not available, it is recommended that a dust respirator is worn, that is approved for use with lead dusts, and its type selected on the basis of the COSHH assessment, taking into account the Workplace Exposure Limit for lead in air. Furthermore, steps should be taken to ensure containment of the dusts created, and that all practicable measures are taken to clean up thoroughly all deposits of dusts in and around the affected area.

Respiratory protection in case of dust or spray mist formation. (particle filter EN143 type P2) Respiratory protection in case of vapour formation. (half mask with combination filter A2-P2 till concentrations of 0,5 Vol%.)

The current Control of Lead at Work Regulations approved code of practice should be consulted for advice on protective clothing and personal hygiene precautions. Care should also be taken to exclude visitors, members of the household and especially children from the affected area, during the actual work and the subsequent clean up operations. All scrapings, dust, etc. should be disposed of by the professional painting contractor as Hazardous Waste.

Extra precautions will also need to be taken when burning off old lead-based paints because fumes containing lead will be produced. It is recommended that a respirator, approved for use with particulate fumes of lead is selected on the basis of the COSHH assessment, taking into account the Workplace Exposure Limit for lead in air. Similar precautions to those given above about sanding should be taken with reference to protective clothing, disposal of scrapings and dusts, and exclusion of other personnel and especially children from the building during actual work and the subsequent clean up operations.

Avoid the inhalation of dust. Wear suitable face mask if dry sanding. Special precautions should be taken during surface preparation of pre-1960s paint surfaces over wood and metal as they may contain harmful lead.

Environmental exposure controls : Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties****Appearance**

Physical state	: Liquid.
Colour	: Not available.
Odour	: Not available.
Odour threshold	: Not available.
pH	: Not available.
Melting point/freezing point	: Not available.
Initial boiling point and boiling range	: 34°C
Flash point	: Closed cup: -18°C
Evaporation rate	: Not available.
Upper/lower flammability or explosive limits	: Not available.

SECTION 9: Physical and chemical properties

Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: 0,771
Solubility(ies)	: Insoluble in the following materials: cold water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/ water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (room temperature): 0,26 cm ² /s Kinematic (40°C): 0,29 cm ² /s
Explosive properties	: Not available.
Oxidising properties	: Not available.
9.2. Other information	
Type of aerosol	: Spray

No additional information.

SECTION 10: Stability and reactivity

10.1. Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2. Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
10.3. Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4. Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products.
10.5. Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
10.6. Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

There are no data available on the mixture itself. The mixture has been assessed following the EC 1272/2008 regulation and classified for toxicological hazards accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains phthalic anhydride, 2-butanone oxime. May produce an allergic reaction.

Acute toxicity

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
phthalic anhydride	LC50 Inhalation Dusts and mists	Rat	>210 mg/m ³	1 hours
	LC50 Inhalation Dusts and mists	Rat	>210 mg/m ³	1 hours
	LD50 Dermal	Rabbit	>10000 mg/kg	-
	LD50 Oral	Rat	1530 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
acetone	Eyes - Mild irritant	Human	-	-	-
	Eyes - Mild irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	-	-
	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
phthalic anhydride	Eyes - Moderate irritant	Rabbit	-	-	-
2-butanone oxime	Eyes - Severe irritant	Rabbit	-	-	-

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
acetone	Category 3	Not applicable.	Narcotic effects
Naphtha (petroleum), hydrotreated heavy	Category 3	Not applicable.	Narcotic effects
phthalic anhydride	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
Naphtha (petroleum), hydrotreated heavy	ASPIRATION HAZARD - Category 1

Other information : Not available.

SECTION 12: Ecological information**12.1. Toxicity**

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

Conclusion/Summary : Not available.

SECTION 12: Ecological information**12.2. Persistence and degradability**

Conclusion/Summary : Not available.

12.3. Bioaccumulative potential**12.4. Mobility in soil**

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5. Results of PBT and vPvB assessment

PBT : Not applicable.
P: Not available. B: Not available. T: Not available.

vPvB : Not applicable.
vP: Not available. vB: Not available.

12.6. Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

SECTION 14: Transport information

	ADR	IMDG
14.1. UN number	UN1950	UN1950
14.2. UN proper shipping name	AEROSOLS	AEROSOLS
14.3. Transport hazard class(es) Class	2	2.1

SECTION 14: Transport information

Subsidiary class	-	-
14.4. Packing group	-	-
14.5. Environmental hazards		
Marine pollutant	No.	No.
Marine pollutant substances		Not available.
14.6. Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.	
HI/Kemler number	Not applicable.	
Emergency schedules (EmS)		F-D,S-U
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	: Not applicable.	
Additional information	<u>Tunnel code</u> (D)	-

SECTION 15: Regulatory information

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

[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

[Annex XIV - List of substances subject to authorisation](#)

[Annex XIV](#)

None of the components are listed.

[Substances of very high concern](#)

None of the components are listed.

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#) : Not applicable.

[Other EU regulations](#)

VOC : Not available.

Europe inventory : At least one component is not listed.

Integrated pollution prevention and control list (IPPC) - Air : Listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
2-butanone oxime	Carc. 2, H351	-	-	-

Aerosol dispensers :

3

SECTION 15: Regulatory information

Extremely flammable

Seveso II Directive

This product is controlled under the Seveso II Directive.

Danger criteria**Category**

P3a: Flammable aerosols containing flammable gases or flammable liquids
 C8: Extremely flammable (R12 or any flammable maintained at temperature > boiling point)

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes
Petroleum gases, liquefied	UK Occupational Exposure Limits EH40 - WEL	liquefied petroleum gas; LPG	Carc.	-

International regulations**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical Safety Assessment : Not applicable.

SECTION 16: Other information

CEPE code : 1

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aerosol 1, H222, H229 Eye Irrit. 2, H319 STOT SE 3, H336 (Narcotic effects)	On basis of test data Calculation method Calculation method

SECTION 16: Other information

Full text of abbreviated H statements	<p>H220 H222, H229</p> <p>H225 H226 H280 H302 H304 H312 H315 H317 H318 H319 H334</p> <p>H335 (Respiratory tract irritation) H336 (Narcotic effects) H351</p>	<p>Extremely flammable gas. Extremely flammable aerosol. Pressurized container: may burst if heated. Highly flammable liquid and vapour. Flammable liquid and vapour. Contains gas under pressure; may explode if heated. Harmful if swallowed. May be fatal if swallowed and enters airways. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. (Respiratory tract irritation) May cause drowsiness or dizziness. (Narcotic effects) Suspected of causing cancer.</p>
Full text of classifications [CLP/GHS]	<p>Acute Tox. 4, H302 Acute Tox. 4, H312 Aerosol 1, H222, H229 Asp. Tox. 1, H304 Carc. 2, H351 Eye Dam. 1, H318</p> <p>Eye Irrit. 2, H319</p> <p>Flam. Gas 1, H220 Flam. Liq. 2, H225 Flam. Liq. 3, H226 Press. Gas Comp. Gas, H280 Resp. Sens. 1, H334 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 (Respiratory tract irritation) STOT SE 3, H336 (Narcotic effects)</p>	<p>ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 AEROSOLS - Category 1 ASPIRATION HAZARD - Category 1 CARCINOGENICITY - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 FLAMMABLE GASES - Category 1 FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 GASES UNDER PRESSURE - Compressed gas RESPIRATORY SENSITIZATION - Category 1 SKIN CORROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3</p>
Full text of abbreviated R phrases	<p>R12- Extremely flammable. R11- Highly flammable. R10- Flammable. R40- Limited evidence of a carcinogenic effect. R21- Harmful in contact with skin. R22- Harmful if swallowed. R65- Harmful: may cause lung damage if swallowed. R41- Risk of serious damage to eyes. R36- Irritating to eyes. R37/38- Irritating to respiratory system and skin. R43- May cause sensitisation by skin contact. R42/43- May cause sensitisation by inhalation and skin contact. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapours may cause drowsiness and dizziness.</p>	
Full text of classifications [DSD/DPD]	<p>F+ - Extremely flammable F - Highly flammable Carc. Cat. 3 - Carcinogen category 3 Xn - Harmful Xi - Irritant</p>	
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SECTION 16: Other information

Date of previous issue : No previous validation.

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