



SAFETY DATA SHEET

Metallic Bronze

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name Metallic Bronze
Product number 433.0004400.076.05022015

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

Identified uses Paint.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier PlastiKote Ltd.
 675 Eskdale Road,
 Winnersh,
 Wokingham, Berkshire,
 RG41 5TS
 UK
 T: +44 (0) 844 736 2235
 sds@plasti-kote.co.uk

1.4. Emergency telephone number

Emergency telephone +44(0) 844 736 2235
 08:00 - 17:00 h (UK)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Aerosol 1 - H222, H229
Health hazards Eye Irrit. 2 - H319 STOT SE 3 - H336
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) F+; R12. Xi; R36. R66, R67

2.2. Label elements

Pictogram



Signal word Danger

Metallic Bronze

Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary statements	P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P271 Use only outdoors or in a well-ventilated area. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a POISON CENTER/doctor if you feel unwell. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501 Dispose of contents/container in accordance with national regulations.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	Acetone
Supplementary precautionary statements	P261 Avoid breathing vapour/spray. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Acetone	30-60%
CAS number: 67-64-1	EC number: 200-662-2
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC or 1999/45/EC) F; R11. Xi; R36. R66, R67
Propane	10-30%
CAS number: 74-98-6	EC number: 200-827-9
Classification Flam. Gas 1 - H220 Press. Gas, Liquefied - H280	Classification (67/548/EEC or 1999/45/EC) F+; R12
isobutyl acetate	10-30%
CAS number: 110-19-0	EC number: 203-745-1
Substance with National workplace exposure limits.	
Classification Flam. Liq. 2 - H225	Classification (67/548/EEC or 1999/45/EC) F; R11. R66

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Butane	5-10%
CAS number: 106-97-8	EC number: 203-448-7
Classification Flam. Gas 1 - H220 Press. Gas, Liquefied - H280	Classification (67/548/EEC or 1999/45/EC) F+; R12
Mica	1-5%
CAS number: 12001-26-2	
Classification Not Classified	
Iron oxide	<1%
CAS number: 1309-37-1	
EC number: 215-168-2	
Classification Not Classified	
Butan-1-ol	<1%
CAS number: 71-36-3	
EC number: 200-751-6	
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335, H336	Classification (67/548/EEC or 1999/45/EC) Xn; R22. Xi; R41, R37/38. R10, R67

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person warm and at rest. If in doubt, get medical attention promptly.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
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Inhalation	Vapours may cause headache, fatigue, dizziness and nausea. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur. May cause nausea, headache, dizziness and intoxication.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Eye contact	Irritation of eyes and mucous membranes.

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

Notes for the doctor	Treat symptomatically.
Specific treatments	No specific chemical antidote is known to be required after exposure to this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Pressurised container: may burst if heated The product is extremely flammable. In use may form flammable/explosive vapour-air mixture.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon.

5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Use water spray to reduce vapours.
Special protective equipment for firefighters	Wear chemical protective suit. Use air-supplied respirator, gloves and protective goggles.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid heat, flames and other sources of ignition. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Avoid inhalation of vapours/spray and contact with skin and eyes.
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6.2. Environmental precautions

Environmental precautions	Exposure to aquatic environment unlikely. Avoid discharge into drains.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Provide adequate ventilation. Absorb spillage with oil-absorbing material.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. For waste disposal, see Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Read and follow manufacturer's recommendations. During application and drying, solvent vapours will be emitted. Avoid inhalation of vapours and spray/mists. Keep away from heat, sparks and open flame. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Avoid exposing aerosol containers to high temperatures or direct sunlight. Keep away from heat, sparks and open flame. Store in a cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Acetone

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³

Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³

isobutyl acetate

Long-term exposure limit (8-hour TWA): WEL 150 ppm 724 mg/m³

Short-term exposure limit (15-minute): WEL 187 ppm 903 mg/m³

Butane

Long-term exposure limit (8-hour TWA): WEL 600 ppm 1450 mg/m³

Short-term exposure limit (15-minute): WEL 750 ppm 1810 mg/m³

Mica

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

Long-term exposure limit (8-hour TWA): WEL 0.8 mg/m³ respirable dust

Iron oxide

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³ fume

Short-term exposure limit (15-minute): WEL 10 mg/m³ fume

as Fe

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust

Butan-1-ol

Short-term exposure limit (15-minute): WEL 50 ppm 154 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Personal protective equipment for eye and face protection should comply with European Standard EN166. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

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Hand protection	To protect hands from chemicals, gloves should comply with European Standard EN374. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Frequent changes are recommended. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Hygiene measures	When using do not eat, drink or smoke. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove non-impervious clothing that becomes contaminated.
Respiratory protection	This product must not be handled in a confined space without adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Contains low-boiling liquids. Use an air-supplied respirator, if necessary. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.
Thermal hazards	Contact with liquid form may cause frostbite.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Copper.
Odour	Organic solvents.
pH	Not relevant. The product is insoluble in water.
Melting point	Not available. Technically not feasible.
Initial boiling point and range	-42 °C - 0°C @ 760 mm Hg
Flash point	< -60°C CC (Closed cup).
Evaporation rate	No information available. The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 2 % Upper flammable/explosive limit: 10 %
Vapour pressure	1000 mbar @ 20°C
Vapour density	> 1 Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.
Relative density	~ 0.85
Solubility(ies)	Immiscible with water. Soluble in the following materials: Organic solvents.
Auto-ignition temperature	~450°C
Viscosity	No information available.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	The product is extremely flammable.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Volatility	Highly volatile.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not applicable.

10.4. Conditions to avoid

Conditions to avoid When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited. Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None at ambient temperatures. Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO₂). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data May cause defatting of the skin but is not an irritant. Repeated exposure may cause skin dryness or cracking.

Extreme pH Not relevant.

Serious eye damage/irritation

Serious eye damage/irritation Irritating to eyes. Vapour or spray in the eyes may cause irritation and smarting.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

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Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Central nervous system depression. Vapours may cause drowsiness and dizziness.
Target organs	No specific target organs known.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Not relevant.
Inhalation	Vapours may cause headache, fatigue, dizziness and nausea. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur. May cause nausea, headache, dizziness and intoxication.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Eye contact	Irritation of eyes and mucous membranes.
Acute and chronic health hazards	A single exposure may cause the following adverse effects: Drowsiness.
Route of entry	Inhalation Dermal
Target organs	No specific target organs known.
Medical symptoms	Fatigue. Headache. Coughing. Dry skin.
Medical considerations	Skin disorders and allergies.

Toxicological information on ingredients.

Acetone

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,800.0

Species Rat

Notes (oral LD₅₀) REACH dossier information.

ATE oral (mg/kg) 5,800.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 15,800.0

Species Rabbit

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Notes (dermal LD₅₀)	REACH dossier information.
ATE dermal (mg/kg)	15,800.0
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ vapours mg/l)	132.0
Species	Rat
Notes (inhalation LC₅₀)	REACH dossier information.
ATE inhalation (vapours mg/l)	132.0
<u>Skin corrosion/irritation</u>	
Animal data	Dose: 0.01mL, 3 days, Rat Based on available data the classification criteria are not met.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Slightly irritating.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Chromosome aberration: Negative. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	NOEL 79 mg/mouse/application, Dermal, Mouse Based on available data the classification criteria are not met.
Target organ for carcinogenicity	Not relevant.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	One-generation study - NOEL 4858 mg/kg/day, Oral, Mouse P Based on available data the classification criteria are not met.
Reproductive toxicity - development	Maternal toxicity: - NOAEC: 2200 ppm, Inhalation, Rat Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	A single exposure may cause the following adverse effects: Drowsiness, dizziness, disorientation, vertigo.
Target organs	Central nervous system

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Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Target organs Not relevant.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Propane

Acute toxicity - oral

Notes (oral LD₅₀) Technically not feasible.

Acute toxicity - dermal

Notes (dermal LD₅₀) Technically not feasible.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV) 800,000.0

Species Rat

Notes (inhalation LC₅₀) REACH dossier information.

ATE inhalation (gases ppm) 800,000.0

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Chromosome aberration: Negative. Based on available data the classification criteria are not met.

Genotoxicity - in vivo Chromosome aberration: Negative. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Screening - NOAEC 9000 ppm, Inhalation, Rat P Based on available data the classification criteria are not met.

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Reproductive toxicity - development Maternal toxicity: - NOAEC: 12000 ppm, Inhalation, Rat Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

isobutyl acetate

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 13,413.0

Species Rat

Notes (oral LD₅₀) REACH dossier information. Conclusive data but not sufficient for classification.

ATE oral (mg/kg) 13,413.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 17,400.0

Species Rabbit

Notes (dermal LD₅₀) REACH dossier information. Conclusive data but not sufficient for classification.

ATE dermal (mg/kg) 17,400.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 30.0

Species Rat

Notes (inhalation LC₅₀) REACH dossier information. Conclusive data but not sufficient for classification.

ATE inhalation (vapours mg/l) 30.0

Skin corrosion/irritation

Animal data Dose: 0.5 ml, 4 hours, Rabbit Erythema/eschar score: No erythema (0). Oedema score: No oedema (0). REACH dossier information. Based on available data the classification criteria are not met.

Extreme pH Moderate pH (> 2 and < 11.5).

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

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Respiratory sensitisation	No information available.
<u>Skin sensitisation</u>	
Skin sensitisation	Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	No information available.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEC 2500 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 10 mg/l, Inhalation, REACH dossier information. Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	NOEL 316 mg/kg, Oral, Rat REACH dossier information. Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.

Butane

<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	Technically not feasible.
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Technically not feasible.
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ gases ppmV)	539,600.0
Species	Mouse
Notes (inhalation LC₅₀)	REACH dossier information. Based on available data the classification criteria are not met.
ATE inhalation (gases ppm)	539,600.0
<u>Skin corrosion/irritation</u>	

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Animal data	Based on available data the classification criteria are not met.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Based on available data the classification criteria are not met.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Based on available data the classification criteria are not met.
<u>Skin sensitisation</u>	
Skin sensitisation	Technically not feasible.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Bacterial reverse mutation test: Negative. Based on available data the classification criteria are not met.
<u>Carcinogenicity</u>	
Carcinogenicity	Not determined. Scientifically unjustified.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Fertility - NOAEC 9000 ppm, Inhalation, Rat P REACH dossier information. Based on available data the classification criteria are not met.
Reproductive toxicity - development	Maternal toxicity: - NOAEC: 12000 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	NOAEC 9000 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.
<u>Aspiration hazard</u>	
Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

Acetone

Toxicity	Not considered toxic to fish.
Acute toxicity - fish	LC ₅₀ , 96 hours: 5540 mg/l, Onchorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 12700 mg/l, Daphnia magna
Acute toxicity - aquatic plants	NOEC, 192 hours: 530 mg/l, Microcystis aeruginosa

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Chronic toxicity - aquatic invertebrates NOEC, 28 days: 2212 mg/l, Daphnia magna

Propane

Acute toxicity - fish LC₅₀, 96 hours: 27.98 mg/l, Estimated value.

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 14.22 mg/l, Estimated value.

Acute toxicity - aquatic plants EC₅₀, 96 hours: 7.71 mg/l, Estimated value.

Chronic toxicity - fish early life stage No information available.

isobutyl acetate

Acute toxicity - fish LC₅₀, 96 hours: 17 mg/l, Oryzias latipes (Red killifish)
REACH dossier information.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 25 mg/l, Daphnia magna
REACH dossier information.

Acute toxicity - aquatic plants EC₅₀, 72 hours: 370 mg/l, Selenastrum capricornutum
REACH dossier information.

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 23 mg/l, Daphnia magna
REACH dossier information.

Butane

Acute toxicity - fish LC₅₀, 96 hours: 24.1 mg/l,
Estimated value.

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 14.2 mg/l,
Estimated value.

Acute toxicity - aquatic plants EC₅₀, 96 hours: 7.7 mg/l,
Estimated value.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known. The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. Volatile substances are degraded in the atmosphere within a few days.

Ecological information on ingredients.

Acetone

Persistence and degradability The substance is readily biodegradable.

Phototransformation Air - DT₅₀ : 20-115 days

Stability (hydrolysis) No significant reaction in water.

Biodegradation Water and sediment - Degradation 90: 28 days

Metallic Bronze

Propane

Persistence and degradability	Highly volatile.
Phototransformation	Air - DT ₅₀ : 1906 days
Stability (hydrolysis)	Not applicable.
Biodegradation	Water - 100%: 385.5 hours

isobutyl acetate

Phototransformation	Air - Half-life : ~ 3.5 days Estimated value. REACH dossier information.
Stability (hydrolysis)	pH7 - Half-life : ~ 3.3 years @ 25°C Estimated value. REACH dossier information.
Biodegradation	Water - Degradation 81: 20 days REACH dossier information. The substance is readily biodegradable.

Butane

Phototransformation	Not determined.
Stability (hydrolysis)	No significant reaction in water.
Biodegradation	Water - DT ₅₀ : 3.5 days Estimated value. The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Ecological information on ingredients.

Acetone

Bioaccumulative potential	BCF: 3, Estimated value.
Partition coefficient	log Pow: -0.24

Propane

Partition coefficient	log Pow: 1.09
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isobutyl acetate

Bioaccumulative potential	BCF: 15.3, Estimated value. REACH dossier information. The product is not bioaccumulating.
Partition coefficient	log Pow: 2.3

Metallic Bronze

Butane

Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil

Mobility The product is immiscible with water and will spread on the water surface. The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Ecological information on ingredients.

Acetone

Mobility Highly volatile. Soluble in water.

Henry's law constant 2.303 Pa m³/mol @ 15°C

Propane

Mobility Highly volatile.

isobutyl acetate

Mobility The product is insoluble in water and will spread on the water surface.

Adsorption/desorption coefficient Soil - log K_{oc}: < 3 @ °C Estimated value. REACH dossier information.

Henry's law constant 41.6 Pa m³/mol @ °C REACH dossier information.

Surface tension 62.5 mN/m @ 20°C REACH dossier information.

Butane

Mobility The product is insoluble in water. Highly volatile.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

Acetone

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Propane

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

isobutyl acetate

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Metallic Bronze

Butane

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects None known.

Ecological information on ingredients.

Acetone

Other adverse effects None known.

Propane

Other adverse effects None known.

isobutyl acetate

Other adverse effects None known.

Butane

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste product or used containers in accordance with local regulations

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

UN No. (ADN) 1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AEROSOLS (IATA: Aerosols, flammable)

Proper shipping name (IMDG) AEROSOLS (IATA: Aerosols, flammable)

Proper shipping name (ICAO) AEROSOLS (IATA: Aerosols, flammable)

Proper shipping name (ADN) AEROSOLS (IATA: Aerosols, flammable)

14.3. Transport hazard class(es)

ADR/RID class 2 (5F)

Metallic Bronze

ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1

Transport labels



14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-D, S-U

Tunnel restriction code (D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

Not relevant.

SECTION 15: Regulatory information

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

National regulations	The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Health and environmental listings	Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer (as amended). Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants (as amended). Regulation (EC) 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals (as amended). None of the ingredients are listed.
Authorisations (Title VII Regulation 1907/2006)	No specific authorisations are known for this product.
Restrictions (Title VIII Regulation 1907/2006)	No specific restrictions on use are known for this product.
SEVESO	P3a - Lower tier 150 tonnes, Upper tier 500 tonnes.

15.2. Chemical safety assessment

Metallic Bronze

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification procedures according to Regulation (EC) 1272/2008	Aerosol 1 - H222, H229: Bridging principle (Aerosols). Eye Irrit. 2 - H319, STOT SE 3 - H336: Calculation method. EUH066: Expert judgement.
Revision date	05/02/2015
Revision	2
Supersedes date	02/11/2012
SDS number	991
Risk phrases in full	R11 Highly flammable. R12 Extremely flammable. R36 Irritating to eyes. R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated H280 Contains gas under pressure; may explode if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.