

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: BRIGHT SILVER PAINT

Article number: P307

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

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Tygris Industrial
Unit 31
Kyle Road Industrial Estate
Irvine
Ayshire
KA12 8LE
Tel +44 (0) 1294 311 066
Fax +44 (0) 1294 277 115
Email technical@tygrisindustrial.com

Further information obtainable from: Technical Department

1.4 Emergency telephone number: Tel +44 (0) 1294 311 066

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol.
Pressurised container: May burst if heated.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Irritant

R36: Irritating to eyes.



F+; Extremely flammable

R12: Extremely flammable.
R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Warning! Pressurised container.

Has a narcotising effect.

Classification system

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02

GHS07

Signal Word

Danger

Hazard-determining components of labelling

Acetone
Ethyl Acetate
N-Butyl Acetate
Butan-1-ol

Hazard statements

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

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P260 Do not breathe spray.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P251 Pressurized container: Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501 Dispose of contents/container in accordance with local regulations.

Additional information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

3. Composition/information on ingredients

3.2 Chemical characterisation

Mixtures

Description

Mixture of substances listed below with nonhazardous additions.

ACETONE Index No. 606-001-00-8 CAS: 67-64-1 Classification (EC 1272/2008) Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	25-50% REACH Registration No. 01-2119471330-49-xxxx EINECS: 200-662-2 Classification (67/548/EEC) Xi R36 F R11 R66-67
DIMETHYL ETHER Index No. 603-019-00-8 CAS: 115-10-6 Classification (EC 1272/2008) Flam. Gas 1, H220; Flam. Liq. 1, H224 Press. Gas C, H280	20-25% REACH Registration No. 01-2119472128-37-xxxx EINECS: 204-065-8 Classification (67/548/EEC) F+ R12
ETHYL ACETATE Index No. 607-022-00-5 CAS: 141-78-6 Classification (EC 1272/2008) Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	5-10% REACH Registration No. 01-2119475103-46-xxxx EINECS: 205-500-4 Classification (67/548/EEC) Xi R36 F R11 R66-67
PROPANE Index No. 601-003-00-5 CAS: 74-98-6 Classification (EC 1272/2008) Flam. Gas 1, H220 Press. Gas C, H280	5-10% REACH Registration No. 01-2119486944-21-xxxx EINECS: 200-827-9 Classification (67/548/EEC) F+ R12
N-BUTYL ACETATE Index No. 607-025-00-1 CAS: 123-86-4 Classification (EC 1272/2008) Flam. Liq. 3, H226 STOT SE 3, H336	5-10% REACH Registration No. 01-2119485493-29-xxxx EINECS: 204-658-1 Classification (67/548/EEC) R10-66-67
BUTANE Index No. 601-004-00-0 CAS: 106-97-8 Classification (EC 1272/2008) Flam. Gas 1, H220 Press. Gas C, H280	5-10% REACH Registration No. 01-2119474691-32-xxxx EINECS: 203-448-7 Classification (67/548/EEC) F+ R12

ISOBUTANE Index No. 601-004-00-0 CAS: 75-28-5 Classification (EC 1272/2008) Flam. Gas 1, H220 Press. Gas C, H280	5-10% REACH Registration No. 01-2119485395-27-xxxx EINECS: 200-857-2 Classification (67/548/EEC) F+ R12
2-METHOXY-1-METHYLETHYL ACETATE Index No. 607-195-00-7 CAS: 108-65-6 Classification (EC 1272/2008) Flam. Liq. 3, H226	5-10% REACH Registration No. 01-2119475791-29-xxxx EINECS: 203-603-9 Classification (67/548/EEC) R10
NITROCELLULOSE (NITROGEN CONTENT <12.6%) Index No. CAS: 9004-70-0 Classification (EC 1272/2008) Flam. Sol. 1, H228	2.5-5% REACH Registration No. EINECS: Classification (67/548/EEC) F R11
BUTAN-1-OL Index No. 603-004-00-6 CAS: 71-36-3 Classification (EC 1272/2008) Flam. Liq. 3, H226 Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	2.5-5% REACH Registration No. 01-2119484630-38-xxxx EINECS: 200-751-6 Classification (67/548/EEC) Xn R22 Xi R37/38-41 R10-67
PROPAN-2-OL Index No. 603-117-00-0 CAS: 67-63-0 Classification (EC 1272/2008) Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	1-2.5% REACH Registration No. 01-2119457558-25-xxxx EINECS: 200-661-7 Classification (67/548/EEC) Xi R36 F R11 R67

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

4. First aid measures

4.1. Description of first aid measures

Inhalation	Supply fresh air; consult doctor in case of complaints.
Ingestion	Drink plenty of water and provide fresh air. Call for a doctor immediately.
Skin contact	Generally the product does not irritate the skin.
Eye contact	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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

No further relevant information available.

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

No further relevant information available.

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.

For safety reasons unsuitable extinguishing agents Water with full jet

5.2. Special hazards arising from the substance or mixture

No further relevant information available.

5.3. Advice for firefighters

Protective equipment No special measures required.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Keep away from ignition sources.

6.2. Environmental precautions

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

6.3. Methods and material for containment and cleaning up

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.

7. Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. 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

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

Information about storage in one common storage facility

Not required.

Further information about storage conditions

Protect from heat and direct sunlight.

7.3. Specific end use(s)

No further relevant information available.

8. Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace

Name	STD	WEL - 8 Hrs		WEL - 15 Min	
ACETONE	WEL	500 ppm	1210 mg/m ³	1500 ppm	3620 mg/m ³
DIMETHYL ETHER	WEL	400 ppm	766 mg/m ³	500 ppm	958 mg/m ³
ETHYL ACETATE	WEL	200 ppm		400 ppm	
N-BUTYL ACETATE	WEL	150 ppm	724 mg/m ³	200 ppm	966 mg/m ³
BUTANE	WEL	600 ppm	1450 mg/m ³	750 ppm	1810 mg/m ³
2-METHOXY-1-METHYLETHYL ACETATE	WEL	50 ppm Sk	274 mg/m ³	100 ppm	548 mg/m ³
BUTAN-1-OL	WEL			50 ppm Sk	154 mg/m ³
PROPAN-2-OL	WEL	400 ppm	999 mg/m ³	500 ppm	1250 mg/m ³

WEL = Workplace Exposure Limits

Additional information The lists valid during the making were used as basis.

8.2. Exposure controls

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.

Respiratory protection

Not required.

Hand protection

Not required.

Eye protection



Tightly sealed goggles

Material of gloves

Not required.

Penetration time of glove material

Not required.

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/Melting range	Undetermined.
Boiling point/Boiling range	Not applicable, as aerosol.
Flash point	< 0 °C (< 32 °F) Not applicable, as aerosol.
Flammability (solid, gaseous)	Not applicable.
Ignition temperature	240 °C (464 °F)
Decomposition temperature	Not determined.
Self-igniting	Product is not selfigniting.
Danger of explosion	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits

Lower	2.6 Vol %
Upper	26.2 Vol %
Vapour pressure at 20 °C (68 °F)	4000 hPa (3000 mm Hg)
Density at 20 °C (68 °F)	0.748 g/cm ³ (6.242 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not applicable.

Solubility in / Miscibility with water Not miscible or difficult to mix.

Partition coefficient (n-octanol/water) Not determined.

Viscosity

Dynamic	Not determined.
Kinematic	Not determined.

Solvent content

Organic solvents 90.9 %

EU-VOC 680.2 g/l

EU-VOC in % 90.93 %

Solids content 8.7 %

9.2. Other information No further relevant information available.

10. Stability and reactivity**10.1. Reactivity****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. Conditions 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 known.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification

ACETONE		
Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	39 mg/m ³ (rat)
DIMETHYL ETHER		
Inhalative	LC50 / 4 h	308 mg/m ³ (rat)
ETHYL ACETATE		
Oral	LD50	5620 mg/kg (rabbit)
Dermal	LD50	>18000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	1600 mg/m ³ (rat)
N-BUTYL ACETATE		
Oral	LD50	10770 mg/kg (rat)
Dermal	LD50	>17600 mg/kg (rabbit)
Inhalative	LC50 / 4 h	>21.0 mg/m ³ (rat)
BUTANE		
Inhalative	LC50 / 4 h	658000 mg/m ³ (rat)
2-METHOXY-1-METHYLETHYL ACETATE		
Oral	LD50	8532 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	35.7 mg/m ³ (rat)
BUTAN-1-OL		
Oral	LD50	2292 mg/kg (rat)
Dermal	LD50	3430 mg/kg (rabbit)
Inhalative	LC50 / 4 h	17.76 mg/m ³ (rat)
PROPAN-2-OL		
Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LC50 / 4 h	30 mg/m ³ (rat)

Primary irritant effect

on the skin No irritant effect.

on the eye Irritating effect.

Sensitisation No sensitising effects known.

Additional toxicological information

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

12. Ecological information

12.1 Toxicity

Aquatic toxicity

ACETONE	
EC50 / 48 h	8800 mg/l (daphnia magna)
LC50 / 48 h	2262 mg/l (daphnia magna)
LC50 / 96 h (static)	5540 mg/l (fish)
DIMETHYL ETHER	
EC50 / 48 h	>4000 mg/l (daphnia magna)
ETHYL ACETATE	
EC50 / 24 h	2500 mg/l (daphnia magna)
N-BUTYL ACETATE	
EC50 / 48 h	44 mg/l (daphnia magna)
EC50 / 96 h	320 mg/l (algae)
LC50 / 24 h	205 mg/l (daphnia magna)
LC50 / 96 h	18 mg/l (Pimephales promelas)
2-METHOXY-1-METHYLETHYL ACETATE	
EC50	408 mg/l (daphnia magna)
BUTAN-1-OL	
EC50 / 48 h	1328 mg/l (daphnia magna)
EC50 / 72 h	8500 mg/l (algae)
LC50 / 96 h	1376 mg/l (Pimephales promelas)
PROPAN-2-OL	
EC50 / 48 h	13299 mg/l (daphnia magna)
LC50 / 96 h (dynamic)	4200 mg/l (fish)

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 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5. Results of PBT and vPvB assessment

PBT Not applicable.

vPvB Not applicable.

12.6. Other adverse effects

No further relevant information available.

13. Disposal considerations

13.1. Waste treatment methods

Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging

Recommendation Non contaminated packagings may be recycled.

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, IATA



Class 2.1

Label 2.1

14.4. Packing group Void
ADR, IMDG, IATA

14.5. Environmental hazards

Marine Pollutant No

14.6. Special precautions for user Warning: Gases.

Danger code (Kemler) -

EMS Number F-D,S-U

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information

ADR

Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity

Transport category 2

Tunnel restriction code D

IMDG

Limited quantities (LQ) 1L
Excepted quantities (EQ) Code: E0
Not permitted as Excepted Quantity

UN "Model Regulation" UN1950, AEROSOLS, 2.1

15. Regulatory information

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

No further relevant information available.

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

16. Other information

Relevant phrases

H220 Extremely flammable gas.
 H224 Extremely flammable liquid and vapour.
 H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H228 Flammable solid.
 H280 Contains gas under pressure; may explode if heated.
 H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.

R10 Flammable.
 R11 Highly flammable.
 R12 Extremely flammable.
 R22 Harmful if swallowed.
 R36 Irritating to eyes.
 R37/38 Irritating to respiratory system and skin.
 R41 Risk of serious damage to eyes.
 R66 Repeated exposure may cause skin dryness or cracking.
 R67 Vapours may cause drowsiness and dizziness.

Abbreviations and acronyms

ADR: 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)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 Flam. Gas 1: Flammable gases, Hazard Category 1
 Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
 Press. Gas C: Gases under pressure: Compressed gas
 Flam. Liq. 1: Flammable liquids, Hazard Category 1
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Flam. Liq. 3: Flammable liquids, Hazard Category 3
 Flam. Sol. 1: Flammable solids, Hazard Category 1
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3