

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

Product identifier

Trade name: P311 GLOSS GREEN PAINT 400ML RAL 6001

Article number: CODE P311

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

Application of the substance / the preparation Paint

Details of the supplier of the safety data sheet

Manufacturer/Supplier: Tygris Industrial
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 Irvine
 Ayrshire
 KA12 8LE
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 Email technical@tygrisindustrial.com

Further information obtainable from: Technical Department

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

2. Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 flame
 Flam. Aerosol 1 H222 Extremely flammable aerosol.

GHS05 corrosion
 Eye Dam. 1 H318 Causes serious eye damage.

GHS07
 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! Pressurized container.
 Has a narcotizing effect.

Classification system:

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

Label elements




Labelling according to EU guidelines:	The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
Code letter and hazard designation of product:	Xi Irritant F+ Extremely flammable
Risk phrases:	12 Extremely flammable. 36 Irritating to eyes. 66 Repeated exposure may cause skin dryness or cracking. 67 Vapours may cause drowsiness and dizziness.
Safety phrases:	2 Keep out of the reach of children. 16 Keep away from sources of ignition - No smoking. 23 Do not breathe aerosol. 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. 46 If swallowed, seek medical advice immediately and show this container or label. 51 Use only in well-ventilated areas.
Special labelling of certain preparations:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.
Classification in accordance with Directive 75/324/EEC:	Extremely flammable
Other hazards	
Results of PBT and vPvB assessment	
PBT:	Not applicable.
vPvB:	Not applicable.

3. Composition/information on ingredients

Chemical characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.


Dangerous components:

CAS: 67-64-1 EINECS: 200-662-2 20-25%	acetone  Xi R36  F R11 R66-67 Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336
CAS: 115-10-6 EINECS: 204-065-8 20-25%	dimethyl ether  F+ R12 Flam. Gas 1, H220; Flam. Liq. 1, H224 Press. Gas, H280


CAS: 123-86-4
EINECS: 204-658-1
10-12.5%

n-butyl acetate
R10-66-67
Flam. Liq. 3, H226
STOT SE 3, H336


CAS: 74-98-6
EINECS: 200-827-9
5-10%


propane
 F+ R12
Flam. Gas 1, H220
Press. Gas, H280

CAS: 108-65-6
EINECS: 203-603-9
5-10%



2-methoxy-1-methylethyl acetate
 Xi R36
R10
Flam. Liq. 3, H226

CAS: 106-97-8
EINECS: 203-448-7
5-10%


butane
 F+ R12
Flam. Gas 1, H220
Press. Gas, H280

isobutaan (bevattend < 0,1 % butadien (203-450-8))
 F+ R12
Flam. Gas 1, H220
Press. Gas, H280



CAS: 71-36-3
EINECS: 200-751-6
2.5-5%

butan-1-ol
 Xn R22
 Xi R37/38-41
R10-67
Flam. Liq. 3, H226
Eye Dam. 1, H318
Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335+H336




CAS: 9004-70-0
2.5-5%

Nitrocellulose (nitrogen content <12.6%)
 F R11
Flam. Sol. 1, H228

CAS: 67-63-0
EINECS: 200-661-7
1-2.5%

propan-2-ol
 Xi R36
 F R11
R67
Flam. Liq. 2, H225
Eye Irrit. 2, H319; STOT SE 3, H336

CAS: 64742-95-6
EINECS: 265-199-0
0.1-1%

Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2)
 Xn R65
 Xi R37
 N R51/53
R10-66-67
Carc. Cat. 2, Muta. Cat. 2
Flam. Liq. 3, H226
Asp. Tox. 1, H304
Aquatic Chronic 2, H411
STOT SE 3, H335+H336

Additional information:

For the wording of the listed risk phrases refer to section 16.

4. First aid measures

Description of first aid measures

After inhalation:	Supply fresh air; consult doctor in case of complaints
After skin contact:	Generally the product does not irritate the skin.
After eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	Drink plenty of water and provide fresh air. Call for a doctor immediately.
Information for doctor:	
Most important symptoms and effects, both acute and delayed	No further relevant information available.
Indication of any immediate medical attention and special treatment needed	No further relevant information available.

5. Firefighting measures

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
Special hazards arising from the substance or mixture	No further relevant information available.
Advice for firefighters	
Protective equipment:	No special measures required.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Ensure adequate ventilation Keep away from ignition sources.
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.
Methods and material for containment and cleaning up:	Ensure adequate ventilation.
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

Handling:

Precautions for safe handling	No special measures required. 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. Pressurized 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.

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 pressurized containers.
Information about storage in one common storage facility:	Not required.
Further information about storage conditions:	Protect from heat and direct sunlight.
Specific end use(s)	No further relevant information available.

8. Exposure controls/personal protection

Additional information about design of technical facilities:	No further data; see item 7.
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Control parameters

Ingredients with limit values that require monitoring at the workplace:	67-64-1 acetone
	WEL () Short-term value: 3620 mg/m ³ , 1500 ppm Long-term value: 1210 mg/m ³ , 500 ppm
	115-10-6 dimethyl ether
	WEL () Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm
	123-86-4 n-butyl acetate
	WEL () Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
	108-65-6 2-methoxy-1-methylethyl acetate
	WEL () Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk
	106-97-8 butane
	WEL () Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
71-36-3 butan-1-ol	
WEL () Short-term value: 154 mg/m ³ , 50 ppm Sk	
67-63-0 propan-2-ol	
WEL () Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm	

Additional information:	The lists valid during the making were used as basis.
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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.
Protection of hands:	Not required.
Material of gloves	Not required.
Penetration time of glove material	Not required.
Eye protection:	Tightly sealed goggles.

9. Physical and chemical properties

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: 1.2 Vol % Upper: 26.2 Vol %
Vapour pressure at 20°C (68 °F):	4000 hPa (3000 mm Hg)
Density at 20°C (68 °F):	0.745 g/cm ³ (6.217 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.
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity:	Dynamic: Not determined. Kinematic: Not determined.
Solvent content:	Organic solvents: 88.5 %
EU-VOC:	679.8 g/l
EU-VOC in %:	91.25 %
Solids content:	11.5 %
Other information	No further relevant information available

10. Stability and reactivity

Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available

Incompatible materials: No further relevant information available

Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:	67-64-1 acetone	
	Oral LD50	5800 mg/kg (rat)
	Dermal LD50	20000 mg/kg (rabbit)
	LC50 / 4 h	39 mg/m ³ (rat)
	115-10-6 dimethyl ether	
	LC50 / 4 h	308 mg/m ³ (rat)
	123-86-4 n-butyl acetate	
	Oral LD50	10770 mg/kg (rat)
	Dermal LD50	>17600 mg/kg (rabbit)
	LC50 / 4 h	>21.0 mg/m ³ (rat)
	108-65-6 2-methoxy-1-methylethyl acetate	
	Oral LD50	8532 mg/kg (rat)
	Dermal LD50	>5000 mg/kg (rabbit)
	LC50 / 4 h	35.7 mg/m ³ (rat)
	106-97-8 butane	
	LC50 / 4 h	658 mg/m ³ (rat)
	71-36-3 butan-1-ol	
	Oral LD50	4400 mg/kg (rat)
	Dermal LD50	4200 mg/kg (rabbit)
	LC50 / 4 h	25 mg/m ³ (rat)
	67-63-0 propan-2-ol	
	Oral LD50	5045 mg/kg (rat)
	Dermal LD50	12800 mg/kg (rabbit)
	LC50 / 4 h	30 mg/m ³ (rat)
	64742-95-6 Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2)	
	Oral LD50	3592 mg/kg (rat) (OECD401)
	Dermal LD50	>3160 mg/kg (rab) (OECD402)
	LC50 / 4 h	>15 mg/m ³ (rat)

Primary irritant effect:

on the skin: No irritant effect

on the eye: Irritating effect.

Sensitization: No sensitizing 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

Toxicity

Aquatic toxicity:	67-64-1 acetone	
	EC50 / 48 h	39 mg/l (daphnia magna)
	LC50 / 48 h	2262 mg/l (daphnia magna)
	LC50 / 96 h (static)	5540 mg/l (fish)
	115-10-6 dimethyl ether	
	EC50 / 48 h	>4000 mg/l (daphnia magna)
	123-86-4 n-butyl acetate	
	EC50 / 96 h	320 mg/l (algae)
	LC50 / 24 h	205 mg/l (daphnia magna)
	108-65-6 2-methoxy-1-methylethyl acetate	
	EC50	408 mg/l (daphnia magna)
	71-36-3 butan-1-ol	
	EC50 / 48 h	1983 mg/l (daphnia magna)
	EC50 / 72 h	8500 mg/l (algae)
	67-63-0 propan-2-ol	
	EC50 / 48 h	13299 mg/l (daphnia magna)
	LC50 / 96 h (dynamic)	4200 mg/l (fish)
	64742-95-6 Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2)	
	EC50 / 24 h	150 mg/l (daphnia magna)
	EC50 / 48 h	7.4 mg/l (daphnia magna)
	LC50 / 96 h	3.77 mg/l (fish)

Persistence and degradability No further relevant information available

Behaviour in environmental systems:

Bioaccumulative potential No further relevant information available

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

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

Other adverse effects No further relevant information available

13. Disposal considerations

Waste treatment methods

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

European waste catalogue 08 01 13 sludges from paint or varnish containing organic solvents or other dangerous substances
 15 01 04 metallic packaging
 15 01 11 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

Uncleaned packaging:

Recommendation Non contaminated packagings may be recycled

14. Transport information

UN-Number

ADR, IMDG, IATA UN1950

UN proper shipping name

ADR 1950 AEROSOLS

IMDG AEROSOLS

IATA AEROSOLS, flammable

Transport hazard class(es)

ADR

Class 2.5F Gases.

Label 2.1

IMDG, IATA

Class 2.1

Label 2.1

Packing group

ADR, IMDG, IATA Void

Environmental hazards: No
Marine Pollutant

Special precautions for user Warning: Gases.

Danger code (Kemler): –

EMS Number: F-D,S-U

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 1L

Transport category 2

Tunnel restriction code D

UN "Model Regulation": UN1950, AEROSOLS, 2.1

15. Regulatory information

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

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.

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.
- H304 May be fatal if swallowed and enters airways.
- 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.
- H411 Toxic to aquatic life with long lasting effects.
- R10 Flammable.
- R11 Highly flammable.
- R12 Extremely flammable.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R37 Irritating to respiratory system.
- R37/38 Irritating to respiratory system and skin.
- R41 Risk of serious damage to eyes.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

Department issuing MSDS: Technical Department

Contact: technical@tygrisindustrial.com

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organization
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent