

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

1.1 Product identifier

Trade name: BLACK HIGH TEMPERATURE PAINT

Article number: P330

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.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H336 May cause drowsiness or dizziness.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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



Xi; Irritant

R36: Irritating to eyes.



F+; Extremely flammable

R12: Extremely flammable.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

GHS09

Signal Word

Danger

Hazard-determining components of labelling

Naphtha (petroleum), hydrotreated light (< 0,1 % benzol CAS nr. 71-43-2)
Naphtha (petroleum), hydrotreated light (< 0,1 % benzol CAS nr. 71-43-2)
Solvent naphtha (petroleum), light arom. (< 0,1 % benzol CAS nr. 71-43-2)

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P102 Keep out of reach of children.
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.

2.3. Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (< 0,1 % BENZOL CAS NR. 71-43-2) Index number: 649-328-00-1 CAS: 64742-49-0 Classification (EC 1272/2008) Flam. Liq. 2, H225 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 Skin Irrit. 2, H315; STOT SE 3, H336	2.5-5% REACH Registration No. 01-2119475133-43-xxxx EINECS: 265-151-9 Classification (67/548/EEC) Xn R65 Xi R38 F R11 N R51/53 R67
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. (< 0,1 % BENZOL CAS NR. 71-43-2) Index number: 649-356-00-4 CAS: 64742-95-6 Classification (EC 1272/2008) Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H335-H336	2.5-5% REACH Registration No. 01-2119455851-35-xxxx EEINECS: 265-199-0 Classification (67/548/EEC) Xn R65 Xi R37 N R51/53 R10-66-67 Carc. Cat. 2, Muta. Cat. 2
POLYBUTYL TITANATE Index No. CAS: 162303-51-7 Classification (EC 1272/2008) Flam. Liq. 3, H226 Eye Dam. 1, H318 Skin Irrit. 2, H315	1-2.5% REACH Registration No. NLP: 500-687-1 Classification (67/548/EEC) Xi R38-41 R10

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	In case of unconsciousness place patient stably in side position for transportation.
Ingestion	Drink plenty of water and provide fresh air. Call for a doctor immediately.
Skin contact	Immediately wash with water and soap and rinse thoroughly.
Eye contact	Rinse opened eye for several minutes under running water. Then 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	
		600 ppm	1450 mg/m ³	750 ppm	1810 mg/m ³
BUTANE	WEL				
XYLENE	WEL	50 ppm Sk; BMGV	220 mg/m ³	100 ppm	441 mg/m ³

WEL = Workplace Exposure Limits

Ingredients with biological limit values:

XYLENE	BMGV	650 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: methyl hippuric acid
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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 and skin.

Respiratory protection

Not required.

Hand protection

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.



Protective gloves

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection

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 > 200 °C (> 392 °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	0.6 Vol %
Upper	10.9 Vol %

Vapour pressure at 20 °C (68 °F) 3500 hPa (2625 mm Hg)

Density at 20 °C (68 °F) 0.705 g/cm³ (5.883 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 85.9 %

EU-VOC 605.9 g/l

EU-VOC in % 85.94 %

Solids content 15.4 %

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

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (< 0,1 % BENZOL CAS NR. 71-43-2)		
Oral	LD50	>5840 mg/kg (rat)
Dermal	LD50	>2920 mg/kg (rabbit)
Inhalative	LC50 / 4 h	>193 mg/m3 (rat)
	LC50 / 4 h	25.2 mg/l (rat)
	LC50 / 96 h	11.4 mg/l (fish)
BUTANE		
Inhalative	LC50 / 4 h	658000 mg/m3 (rat)
XYLENE		
Oral	LD50	3523 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	22.1 mg/m3 (rat)
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (< 0,1 % BENZOL CAS NR. 71-43-2)		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2600 mg/kg (rabbit)
Inhalative	LC50 / 4 h	>193 mg/m3 (rat)
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)
Inhalative	LC50 / 4 h	>6193 mg/m3 (rat)

Primary irritant effect

on the skin Irritant to skin and mucous membranes.

on the eye No 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

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (< 0,1 % BENZOL CAS NR. 71-43-2)	
EC50 / 48 h	3 mg/l (daphnia magna)
EC50 / 72 h	30-100 mg/l (algae)
LC50 / 96 h	93-117 mg/l (fish)
XYLENE	
EC50 / 48 h	7.4 mg/l (daphnia magna)
LC50 / 96 h	13.5 mg/l (fish)
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT (< 0,1 % BENZOL CAS NR. 71-43-2)	
LC50	127-159 mg/l (Leuciscus idus)
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)

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.

Ecotoxicological effects

Remark Toxic for fish

Additional ecological information

General notes Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms

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.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H280 Contains gas under pressure; may explode if heated.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
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.
R20/21 Harmful by inhalation and in contact with skin.
R37 Irritating to respiratory system.
R38 Irritating to 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.

Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
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. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
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
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

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.