



SAFETY DATA SHEET
401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name 401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)
Product No. 401/G115/ COLOURS

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

Identified uses Paint.

1.3. Details of the supplier of the safety data sheet

Supplier TEAL & MACKRILL LIMITED
LOCKWOOD STREET
HULL
HU2 0HN
+44(0)1482 320194(T)
+44(0)1482 219266(F)
info@teamac.co.uk
Contact Person Technical Department - 08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri as above

1.4. Emergency telephone number

+44 (0) 1482 320194 (08.30 - 16.30 hrs Mon - Thurs, 08.30 - 15.00 hrs Fri)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical and Chemical Hazards Flam. Liq. 3 - H226
Human health EUH066;STOT SE 3 - H336
Environment Aquatic Chronic 2 - H411
Classification (1999/45/EEC) N;R51/53. R10, R66, R67.

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

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008



Signal Word Warning
Hazard Statements

H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary Statements

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P501A	Dispose of contents/container to special waste collection point

Supplementary Precautionary Statements

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing vapour/spray.
P370+378	In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P391	Collect spillage.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P403+235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Supplemental label information

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains 2-BUTANONE OXIME,NEODECANOATE ACID, COBALT SALT,PHTHALIC ANHYDRIDE. May produce an allergic reaction.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY		10-30%
CAS-No.: 64742-82-1	EC No.: 265-185-4	Registration Number: 01-2119458049-33
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. N;R51/53. R10,R66,R67.	
WHITE SPIRIT		10-30%
CAS-No.:	EC No.: 919-446-0	Registration Number: 01-2119458049-33-XXXX
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. N;R51/53. R10,R66,R67.	

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Low Aromatic White Spirit		1-5%
CAS-No.:	EC No.: 919-857-5	Registration Number: 01-2119463258-33-XXXX
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H336 Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R65. R10,R66,R67.	
XYLENE, MIXED ISOMERS		1-5%
CAS-No.: 1330-20-7	EC No.: 215-535-7	Registration Number: 01-2119488216-32-xxxx
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R20/21,R65. Xi;R36/37/38. R10.	
SOLVENT NAPHTHA, LIGHT AROMATIC(content of benzene <0.1%)		1-5%
CAS-No.: 64742-95-6	EC No.: 265-199-0	Registration Number: 01-2119455851-35
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H335, H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. Xi;R37. N;R51/53. R10,R66,R67.	
ETHYLBENZENE		1-5%
CAS-No.: 100-41-4	EC No.: 202-849-4	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 4 - H332	Classification (67/548/EEC) F;R11 Xn;R20	
1,2,4-TRIMETHYLBENZENE		<1%
CAS-No.: 95-63-6	EC No.: 202-436-9	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 Aquatic Chronic 2 - H411	Classification (67/548/EEC) R10 Xn;R20 Xi;R36/37/38 N;R51/53	

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2-METHOXY-1-METHYLETHYL ACETATE		<1%
CAS-No.: 108-65-6	EC No.: 203-603-9	Registration Number: 01-2119475791-29-xxxx
Classification (EC 1272/2008) Flam. Liq. 3 - H226	Classification (67/548/EEC) R10	
Low Aromatic White Spirit		<1%
CAS-No.: 64742-48-9	EC No.: 265-150-3	Registration Number: 01-2119457273-39
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R65. R10,R66.	
PHTHALIC ANHYDRIDE		<1%
CAS-No.: 85-44-9	EC No.: 201-607-5	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 STOT SE 3 - H335	Classification (67/548/EEC) Xn;R22 R42/43 Xi;R37/38,R41	
NEODECANOATE ACID, COBALT SALT		<1%
CAS-No.: 27253-31-2	EC No.: 248-373-0	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Sens. 1 - H317 Repr. 2 - H361f Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R22. Repr. Cat. 3;R62. N;R51/53. R43.	
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM.		<1%
CAS-No.: 64742-94-5	EC No.: 265-198-5	
Classification (EC 1272/2008) Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. N;R51/53.	
ZIRCONIUM SALT, 2-ETHYLHEXANOIC ACID		<1%
CAS-No.: 22464-99-9	EC No.: 245-018-1	Registration Number: 01-2119979088-21-0002
Classification (EC 1272/2008) Repr. 2 - H361d	Classification (67/548/EEC) Repr. Cat. 3;R63.	

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2-BUTANONE OXIME			<1%
CAS-No.: 96-29-7	EC No.: 202-496-6	Registration Number: 01-2119539477-28	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 4 - H312	Carc. Cat. 3;R40
Eye Dam. 1 - H318	Xn;R21
Skin Sens. 1 - H317	R43
Carc. 2 - H351	Xi;R41

MESITYLENE			<1%
CAS-No.: 108-67-8	EC No.: 203-604-4		

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 3 - H226	R10
STOT SE 3 - H335	Xi;R37
Aquatic Chronic 2 - H411	N;R51/53

NAPHTHALENE			<1%
CAS-No.: 91-20-3	EC No.: 202-049-5		

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 4 - H302	Carc. Cat. 3;R40
Carc. 2 - H351	Xn;R22
Aquatic Acute 1 - H400	N;R50/53
Aquatic Chronic 1 - H410	

CUMENE			<0.1%
CAS-No.: 98-82-8	EC No.: 202-704-5		

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 3 - H226	R10
STOT SE 3 - H335	Xn;R65
Asp. Tox. 1 - H304	Xi;R37
Aquatic Chronic 2 - H411	N;R51/53

ZIRCONIUM PROPIONATE			<0.1%
CAS-No.: 84057-80-7	EC No.: 281-897-8	Registration Number: 01-2119978305-30-0000	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Not classified.	Not classified.

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

General information

General first aid, rest, warmth and fresh air. Do not give victim anything to drink if they are unconscious.

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Inhalation

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues. Place unconscious person on the side in the recovery position and ensure breathing can take place.

Ingestion

DO NOT induce vomiting. Get medical attention immediately. Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes and get medical attention.

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

General information

If adverse symptoms develop as described the casualty should be transferred to hospital as soon as possible.

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

No specific first aid measures noted.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

FLAMMABLE. Solvent vapours may form explosive mixtures with air.

Specific hazards

When heated and in case of fire, harmful vapours/gases may be formed.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Be aware of danger for fire to re-start. Cool containers exposed to flames with water until well after the fire is out. Do not allow runoff to sewer, waterway or ground.

Protective equipment for fire-fighters

Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. Do not smoke, use open fire or other sources of ignition. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.

6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground. Contain spillages with sand, earth or any suitable adsorbent material. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

For personal protection, see section 8.

SECTION 7: HANDLING AND STORAGE

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)**7.1. Precautions for safe handling**

Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist. Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not eat, drink or smoke when using the product. The Manual Handling Operations Regulations may apply to the handling of containers of this product. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.

7.2. Conditions for safe storage, including any incompatibilities

Store in closed original container at temperatures between 5°C and 25°C. Keep away from heat, sparks and open flame. Keep containers tightly closed. Keep upright. Store separated from: Oxidising material. Alkalis. Acids.

Storage Class

Flammable liquid storage. The storage and use of this product is subject to the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). The requirements are given in the HSE Approved Code of Practice and Guidance, Storage of Dangerous Substances: DSEAR. Up to 250 litres of liquids with a flashpoint above 32C but below 55C may be kept in a workroom provided they are kept in closed containers in a marked, fire-resisting cupboard or bin. Larger quantities must be kept in a separate, marked storeroom conforming to the structural requirements contained in the HSE guidance note Storage of Flammable Liquids in Containers.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage Description

Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
1,2,4-TRIMETHYLBENZENE	WEL	25 ppm	125 mg/m3			
2-METHOXY-1-METHYLETHYL ACETATE	WEL	50 ppm	274 mg/m3	100 ppm	548 mg/m3	Sk
CUMENE	WEL	25 ppm(Sk)	125 mg/m3(Sk)	50 ppm(Sk)	250 mg/m3(Sk)	
ETHYLBENZENE	WEL	100 ppm	441 mg/m3	125 ppm	552 mg/m3	Sk
Low Aromatic White Spirit	WEL		1000 mg/m3			
Low Aromatic White Spirit	WEL		1000 mg/m3			
NAPHTHALENE	OEL	10 ppm	50 mg/m3			
NEODECANOATE ACID, COBALT SALT	WEL		0.1 mg/m3			
PHTHALIC ANHYDRIDE	WEL		4 mg/m3(Sen)		12 mg/m3(Sen)	
SOLVENT NAPHTHA, LIGHT AROMATIC(content of benzene <0.1%)	SUP		600 mg/m3			
WHITE SPIRIT	WEL		350 mg/m3			
XYLENE, MIXED ISOMERS	WEL	50 ppm	220 mg/m3	100 ppm	441 mg/m3	Sk
ZIRCONIUM PROPIONATE	WEL		5 mg/m3		10 mg/m3	
ZIRCONIUM SALT, 2-ETHYLHEXANOIC ACID	WEL		5 mg/m3		10 mg/m3	

WEL = Workplace Exposure Limit.

OEL = Occupational Exposure Limit.

Sk = Can be absorbed through skin.

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)**2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)**

DNEL				
Professional	Dermal	Long Term	Systemic Effects	153.5 mg/kg/day
Professional	Inhalation.	Long Term	Systemic Effects	275 mg/m3
Consumer	Dermal	Long Term	Systemic Effects	54.8 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	33 mg/m3
Consumer	Oral	Long Term	Systemic Effects	1.67 mg/kg/day
PNEC				
Freshwater	0.635	mg/l		
Marinewater	0.0635	mg/l		
Intermittent release	6.35	mg/l		
STP	100	mg/l		
Sediment	3.29	mg/kg		
Sediment (Marinewater)	0.329	mg/kg		
Soil	0.29	mg/kg		

NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY (CAS: 64742-82-1)

DNEL				
Industry	Inhalation.	Long Term	Systemic Effects	330 mg/m3
Industry	Dermal	Long Term	Systemic Effects	44 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	71 mg/m3
Consumer	Dermal	Long Term	Systemic Effects	26 mg/kg/day
Consumer	Oral	Long Term	Systemic Effects	26 mg/kg/day

SOLVENT NAPHTHA, LIGHT AROMATIC(content of benzene <0.1%) (CAS: 64742-95-6)

DNEL				
Industry	Dermal	Long Term	Systemic Effects	25 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	150 mg/m3
Consumer	Dermal	Long Term	Systemic Effects	11 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	32 mg/m3
Consumer	Oral	Long Term	Systemic Effects	11 mg/kg/day

Low Aromatic White Spirit

DNEL				
Consumer	Oral	Long Term	Systemic Effects	300 mg/kg/day
Consumer	Dermal	Long Term	Systemic Effects	300 mg/kg/day
Industry	Dermal	Long Term	Systemic Effects	300 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	1500 mg/m3
Consumer	Inhalation.	Long Term	Systemic Effects	900 mg/m3

No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

WHITE SPIRIT

DNEL				
Consumer	Oral	Long Term	Systemic Effects	1040 mg/kg/day
Consumer	Dermal	Long Term	Systemic Effects	1040 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	710 mg/m3
Consumer	Inhalation.	Short Term	Systemic Effects	570 mg/m3
Industry	Inhalation.	Short Term	Systemic Effects	570 mg/m3
Industry	Inhalation.	Long Term	Systemic Effects	1980 mg/m3
Industry	Dermal	Long Term	Systemic Effects	1056 mg/kg/day

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

DNEL				
Consumer	Oral	Long Term	Systemic Effects	12.5 mg/kg/day
Consumer	Dermal	Long Term	Systemic Effects	1872 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	65.3 mg/m3
Consumer	Inhalation.	Short Term	260	mg/m3
Industry	Dermal	Long Term	Systemic Effects	3182 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	221 mg/m3
Industry	Inhalation.	Short Term	442	mg/m3

No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

ETHYLBENZENE (CAS: 100-41-4)

DNEL				
Consumer	Oral	Long Term	Systemic Effects	1.6 mg/kg/day
Consumer	Dermal	Long Term	Systemic Effects	108 mg/kg/day
Consumer	Inhalation.	Long Term	Systemic Effects	14.8 mg/m3
Industry	Dermal	Long Term	Systemic Effects	180 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	77 mg/m3
Industry	Inhalation.	Short Term	289	mg/m3

8.2. Exposure controls

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Protective equipment



Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

Hand protection

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin.

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

Other Protection

Wear appropriate clothing to prevent reasonably probable skin contact.

Hygiene measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	Viscous Coloured liquid.
Colour	Various colours
Odour	of solvents
Solubility	Insoluble in water
Relative density	0.92 - 1.18 dependant on colour @ 20 C
Vapour density (air=1)	heavier than air
Viscosity	3.0 (ICI Rotothinner) Ps @ 25 C
Flash point (°C)	38 approx. CC (Closed cup).
Flammability Limit - Lower(%)	0.8

9.2. Other information

Volatility Description	Volatile
Volatile Organic Compound (VOC)	420 - 540 g/litre

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid contact with acids and oxidising substances.

10.5. Incompatible materials

Materials To Avoid

Strong alkalis. Strong acids. Strong oxidising substances.

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Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects****Inhalation**

Vapour from this chemical can be hazardous when inhaled. Vapour may irritate respiratory system or lungs.

Ingestion

Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

Skin contact

Acts as a defatting agent on skin. May cause cracking of skin, and eczema. Prolonged or repeated exposure may cause severe irritation.

Eye contact

May cause temporary eye irritation.

Health Warnings

This product has low toxicity. Only large volumes may have adverse impact on human health.

Route of entry

Inhalation. Skin absorption. Ingestion. Skin and/or eye contact.

Medical Considerations

Skin disorders and allergies. Avoid vomiting and normal rinse of stomach because of risk of aspiration.

Toxicological information on ingredients.**NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY (CAS: 64742-82-1)**Acute toxicity:

Acute Toxicity (Oral LD50)

> 5000 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 4 mg/kg Rabbit

Specific target organ toxicity - single exposure:

Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.

Aspiration hazard:

Ingestion

Harmful: may cause lung damage if swallowed.

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)**Low Aromatic White Spirit****Acute toxicity:**

Acute Toxicity (Oral LD50)

> 5000 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 5000 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

> 5 mg/l (vapours) Rat 4 hours

Skin Corrosion/Irritation:

Erythema/scar score

Very slight erythema -barely perceptible (1). Well defined erythema (2).

Oedema score

No oedema (0).

Slightly irritating.

Serious eye damage/irritation:

Not Irritating.

Respiratory or skin sensitisation:

Not sensitising.

Skin sensitisation

Guinea pig maximization test (GPMT): Guinea Pig

Not Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Chromosome aberration:

Negative.

This substance has no evidence of mutagenic properties.

Carcinogenicity:

Inhalation. Rat

This substance has no evidence of carcinogenic properties. Does not contain any substances known to be carcinogenic.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Fertility: Inhalation. Rat

This substance has no evidence of toxicity to reproduction.

Reproductive Toxicity - Development

Developmental toxicity: Inhalation. Rat

This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

Not available.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

Inhalation

Vapours may cause drowsiness and dizziness. Central nervous system depression.

Ingestion

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

Skin contact

Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

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Eye contact

No specific health warnings noted.

Route of entry

Inhalation. Ingestion.

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Other Health Effects

This substance has no evidence of carcinogenic properties.

Acute toxicity:

Acute Toxicity (Oral LD50)

> 15000 mg/kg Rat

Minimally toxic via ingestion

Acute Toxicity (Dermal LD50)

~ 3400 mg/kg Rabbit

Not corrosive to skin Not irritating

Acute Toxicity (Inhalation LC50)

> 13.1 mg/l (vapours) Rat 4 hours

Serious eye damage/irritation:

Not Irritating.

Respiratory or skin sensitisation:

Respiratory sensitisation

Not determined.

There is evidence that the material can lead to respiratory hypersensitivity.

Not Sensitising.

Carcinogenicity:

Carcinogenicity

NOAEL 300 mg/kg Oral Rat

Reproductive Toxicity:

Reproductive Toxicity - Fertility

One-generation study: NOAEL >3000 mg/kg/day Oral Rat P

Reproductive Toxicity - Development

Developmental toxicity: NOAEC >300 ppm Inhalation. Rat

Specific target organ toxicity - single exposure:

Target Organs

Central nervous system

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEL 1056 mg/kg Oral Rat

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

Inhalation

No specific health warnings noted.

Ingestion

Harmful: may cause lung damage if swallowed. May cause stomach pain or vomiting.

Skin contact

May cause defatting of the skin, but is not an irritant. Not a skin sensitiser.

Eye contact

No specific health warnings noted.

Route of entry

Skin and/or eye contact. Inhalation.

Target Organs

Central nervous system

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)**XYLENE, MIXED ISOMERS (CAS: 1330-20-7)**Acute toxicity:

Acute Toxicity (Oral LD50)

4300 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 1700 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

5000 ppmV (gas) Rat 4 hours

Serious eye damage/irritation:

Severe skin irritant; irritation of eyes is assumed. No testing is needed.

Respiratory or skin sensitisation:

Not sensitising.

Not Sensitising.

Carcinogenicity:

This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

This substance has no evidence of toxicity to reproduction.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

Inhalation

Harmful by inhalation.

Ingestion

Pneumonia may be the result if vomited material containing solvents reaches the lungs.

Skin contact

Harmful in contact with skin.

Eye contact

May cause severe irritation to eyes.

Central nervous system Liver

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Ecological information on ingredients.**XYLENE, MIXED ISOMERS (CAS: 1330-20-7)**

Ecotoxicity

The product is not expected to be hazardous to the environment.

12.1. Toxicity

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)Ecological information on ingredients.**NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY (CAS: 64742-82-1)**

Acute Toxicity - Fish

LC50 96 hours 10 - 30 mg/l Onchorhynchus mykiss (Rainbow trout)

EC50 48 hours 9 mg/l Daphnia magna

Low Aromatic White Spirit

Acute Toxicity - Fish

LC50 96 hours > 1000 mg/l Onchorhynchus mykiss (Rainbow trout)

Substance did not cause acute toxicity to fish

EC 50, 48 Hrs, Daphnia, mg/l

>1000

Substance did not cause acute toxicity to the freshwater invertebrates

Acute Toxicity - Aquatic Plants

EC50 72 hours > 1000 mg/l Freshwater algae

Substance did not cause acute toxicity to the freshwater green algae

EC50 > 100 mg/l Activated sludge

Chronic Toxicity - Fish Early life Stage

NOEC 28 days 0.131 mg/l Onchorhynchus mykiss (Rainbow trout)

Chronic Toxicity - Aquatic Invertebrates

NOEC 28 days 0.23 mg/l Daphnia magna

WHITE SPIRIT

Dangerous for the environment if discharged into watercourses Toxic to aquatic organisms

LC 50, 96 Hrs, Fish mg/l

10 - 30

EC 50, 48 Hrs, Daphnia, mg/l

10 - 22

IC 50, 72 Hrs, Algae, mg/l

4.6 - 10

Chronic Toxicity - Aquatic Invertebrates

NOEC 21 days < 0.28 mg/l Daphnia magna

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

LC 50, 96 Hrs, Fish mg/l

2.6

EC 50, 48 Hrs, Daphnia, mg/l

3.62

IC 50, 72 Hrs, Algae, mg/l

3.2

12.2. Persistence and degradability

Degradability

The product is not expected to be biodegradable.

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)Ecological information on ingredients.**NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY (CAS: 64742-82-1)**

Biodegradation

74.7 28 days

Low Aromatic White Spirit

Degradability

The product is easily biodegradable.

Oxidises rapidly by photo-chemical reactions in air

Biodegradation

Degradation (80%) 28 days

Test - 301F Ready Biodegradability - Manometric Respiratory Test

WHITE SPIRIT

Degradability

The product is easily biodegradable.

Biodegradation

Degradation (75%) 28 days

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product contains potentially bioaccumulating substances.

Ecological information on ingredients.**NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY (CAS: 64742-82-1)**

Bioaccumulation factor

BCF 500

Partition coefficient

log Pow 3.7 - 6.7

Low Aromatic White Spirit

Bioaccumulative potential

The product contains potentially bioaccumulating substances.

Partition coefficient

5 - 6.7

WHITE SPIRIT

Bioaccumulation factor

Scientifically unjustified.

Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Partition coefficient

log Kow 3.12 - 3.2

12.4. Mobility in soil

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)Ecological information on ingredients.**Low Aromatic White Spirit**

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Readily absorbed into soil.

Adsorption/Desorption Coefficient

Not available.

Surface tension

24.5 mN/m 20 °C

WHITE SPIRIT

Adsorption/Desorption Coefficient

Scientifically unjustified.

Volatilisation is dependent on Henry's Law constant (HLC) which is not applicable to complex substances.

12.5. Results of PBT and vPvB assessmentEcological information on ingredients.**Low Aromatic White Spirit**

Not Classified as PBT/vPvB by current EU criteria.

WHITE SPIRIT

Not Classified as PBT/vPvB by current EU criteria.

XYLENE, MIXED ISOMERS (CAS: 1330-20-7)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

The product contains volatile, organic compounds which have a photochemical ozone creation potential.

Ecological information on ingredients.**Low Aromatic White Spirit**

Not known.

WHITE SPIRIT

This substance may contribute to ozone formation in the near surface atmosphere. However, the photochemical formation of ozone depends on a complex interaction of other atmospheric pollutant sources and environmental conditions. Therefore, the contribution of this substance to ozone formation is outside the scope of this substance assessment and is more appropriately addressed via EU air quality directives.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

Do not allow to enter drains, sewers or watercourses.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

Waste Class

When this coating, in its liquid state, as supplied, becomes a waste, it is categorised as hazardous waste, with code 08 01 11* (SOLVENT BASED LIQUID WASTE). Part-used containers, not drained and/or rigorously scraped out and containing dried residues of the supplied coating, are categorised as hazardous waste, with code 08 01 11* (SOLVENT BASED LIQUID WASTE). If mixed with other wastes, the above waste code may not be applicable. Used containers, drained and/or rigorously scraped out and containing dry residues of the supplied coating, are categorised as non-hazardous waste, with code 15 01 02 (plastic packaging) or 15 01 04 (metal packaging).

SECTION 14: TRANSPORT INFORMATION

General

This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG.

14.1. UN number

UN No. (ADR/RID/ADN) 1263

UN No. (IMDG) 1263

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)

UN No. (ICAO) 1263

14.2. UN proper shipping name

Proper Shipping Name Contains White Spirit, Class 3, PG III, (38 °C c.c), MARINE POLLUTANT

Proper Shipping Name PAINT

14.3. Transport hazard class(es)

ADR/RID/ADN Class 1263

ADR/RID/ADN Class Class 3: Flammable liquids.

IMDG Class 3

ICAO Class/Division 3

Transport Labels

**14.4. Packing group**

ADR/RID/ADN Packing group III

IMDG Packing group III

ICAO Packing group III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

**14.6. Special precautions for user**

EMS F-E, S-E

Tunnel Restriction Code (D/E)

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

Not applicable.

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply. Dangerous Substances and Explosive Atmospheres Regulations 2002 [L138]

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

EU Legislation

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

National Regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Comments

Issued in new format for Reach compliance in accordance with EC 1272/2008 Issued in accordance with Annex II to REACH, as amended by Commission Regulation (EU) No. 453/2010 Update for CLP labelling.

Issued By	Technical Dept. (P.E.)
Revision Date	07/04/2015
Revision	7
Supersedes date	14/11/2012
SDS No.	10721
Safety Data Sheet Status	Approved.
Date	Date printed _____
Signature	Initials _____

Risk Phrases In Full

R10	Flammable.
R20/21	Harmful by inhalation and in contact with skin.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R21	Harmful in contact with skin.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable
R36/37/38	Irritating to eyes, respiratory system and skin.
R37/38	Irritating to respiratory system and skin.
R37	Irritating to respiratory system.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R43	May cause sensitisation by skin contact.
NC	Not classified.
R63	Possible risk of harm to the unborn child.
R62	Possible risk of impaired fertility.
R66	Repeated exposure may cause skin dryness or cracking.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

401/G115 - METALCOTE ENAMEL (LEAD CHROME FREE COLOURS)

Hazard Statements In Full

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure if inhaled.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
EUH066	Repeated exposure may cause skin dryness or cracking.
H351	Suspected of causing cancer.
H361f	Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

Disclaimer

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.