

Safety data sheet

Lemon Yellow - 108

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

1.1 Product identifier

· **Trade name:** Lemon Yellow - 108

· **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.

· **Application of the substance / the mixture**

Pigment

Corrosion inhibitors

· **1.3 Company Name:** Michael Harding Art Formulas Ltd
Unit K Springvale Industrial Estate, Cwmbran, Torfaen, NP44 5BE

· **1.4 Emergency telephone number:** +44(0)1633484700 (Mon-Thur 08:00-16:30 Fri 08:00-15:30)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Muta. 1B H340 May cause genetic defects.

Carc. 1A H350 May cause cancer.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

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

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· Hazard pictograms



GHS06 GHS08 GHS09

· Signal word Danger

· Hazard-determining components of labelling:

barium chromate

· Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

H311 Toxic in contact with skin.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H340 May cause genetic defects.

H350 May cause cancer.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

· Precautionary statements

P201 Obtain special instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P284 [In case of inadequate ventilation] wear respiratory protection.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment





· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **Description:** Mixture: consisting of the following components.

· Dangerous components:

CAS: 10294-40-3	barium chromate	97-100%
EINECS: 233-660-5	 Acute Tox. 3, H311	
Reg.nr.: 01-2120769889-24	 Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1A, H350; Repr. 2, H361; STOT RE 1, H372	
	 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
	 Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317	

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Take affected persons into fresh air and keep quiet.

Call a doctor immediately.

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Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Seek immediate medical advice.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Call for a doctor immediately.

· **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.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **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:**

Wear self-contained respiratory protective device.

Mouth respiratory protective device.

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

· **6.2 Environmental precautions:**

Do not allow to penetrate the ground/soil.

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:**

Dispose contaminated material as waste according to item 13.

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.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of dust.

- **Information about fire - and explosion protection:**
The product is not flammable.
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage:**
 - **Requirements to be met by storerooms and receptacles:**
Keep containers sealed stored and in a dry and cool area.
 - **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from reducing agents.
 - **Further information about storage conditions:**
Store in dry conditions.
Store in a cool place.
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
 - **Ingredients with limit values that require monitoring at the workplace:**
CAS: 10294-40-3 barium chromate (70-100%)
BOELV Long-term value: 0.005; 0.01*; 0.025** mg/m³
as Cr; *until 01/17/2025**processes generating fume
 - **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
 - **Personal protective equipment:**
 - **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
Shower or take a bath at the end of work.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
 - **Respiratory protection:**
Filter P3
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 - **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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

- **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.

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- **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:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:** Powder

- **Colour:** Yellow

- **Odour:** Odourless

- **Odour threshold:** Not determined.

- **pH-value at 20 °C:** 8

- **Change in condition**

- **Melting point/freezing point:** Undetermined.

- **Initial boiling point and boiling range:** Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gas):** Not determined.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

- **Lower:** Not determined.

- **Upper:** Not determined.

- **Vapour pressure:** Not applicable.

- **Density at 20 °C:** 4.5 g/cm³

- **Relative density** Not determined.

- **Vapour density** Not applicable.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **water:** Insoluble.

- **Partition coefficient: n-octanol/water:** Not determined.

- **Viscosity:**

- **Dynamic:** Not applicable.

- **Kinematic:** Not applicable.

- **Solvent content:**

- **Solids content:** 100.0 %

- **9.2 Other information**

No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with reducing agents.
- **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.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
 - **Acute toxicity**
Harmful if swallowed or if inhaled.
Toxic in contact with skin.
 - **LD/LC50 values relevant for classification:**
- CAS: 10294-40-3 barium chromate**
Oral LD50 >5,000 mg/kg (rat)
- **Primary irritant effect:**
 - **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
 - **Serious eye damage/irritation**
Based on available data, the classification criteria are not met.
 - **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
 - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
 - **Germ cell mutagenicity**
May cause genetic defects.
 - **Carcinogenicity**
May cause cancer.
 - **Reproductive toxicity**
Suspected of damaging fertility or the unborn child.
 - **STOT-single exposure** Based on available data, the classification criteria are not met.
 - **STOT-repeated exposure**
Causes damage to organs through prolonged or repeated exposure.
 - **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
 - **Aquatic toxicity:** No further relevant information available.
- **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:** Very toxic for fish
 - **Additional ecological information:**
 - **General notes:**
Avoid transfer into the environment.
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.

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Also poisonous for fish and plankton in water bodies.
Very 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.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
 - **Recommendation**
Disposal must be made according to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
 - **Uncleaned packaging:**
 - **Recommendation:**
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- **14.1 UN-Number**
 - **ADR, IMDG, IATA** UN1564
- **14.2 UN proper shipping name**
 - **ADR** 1564 BARIUM COMPOUND, N.O.S. (barium chromate), ENVIRONMENTALLY HAZARDOUS
 - **IMDG** BARIUM COMPOUND, N.O.S. (barium chromate), MARINE POLLUTANT
 - **IATA** BARIUM COMPOUND, N.O.S. (barium chromate)
- **14.3 Transport hazard class(es)**
 - **ADR, IMDG**
 - 
 - 
 - **Class** 6.1 Toxic substances.
 - **Label** 6.1
 - **IATA**
 - 
 - **Class** 6.1 Toxic substances.
 - **Label** 6.1
- **14.4 Packing group**
 - **ADR, IMDG, IATA** II
- **14.5 Environmental hazards:** Product contains environmentally hazardous substances: barium chromate
 - **Marine pollutant:** No
 - **Special marking (ADR):** Symbol (fish and tree)
 - **Special marking (ADR):** Symbol (fish and tree)
- **14.6 Special precautions for user** Warning: Toxic substances.

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- **Danger code (Kemler):** 60
- **EMS Number:** F-A,S-A
- **Stowage Category** A

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

- **Transport/Additional information:**

- **ADR**

- **Limited quantities (LQ)** 500 g
- **Excepted quantities (EQ)** Code: E4
Maximum net quantity per inner packaging: 1 g
Maximum net quantity per outer packaging: 500 g
- **Transport category** 2
- **Tunnel restriction code** D/E

- **IMDG**

- **Limited quantities (LQ)** 500 g
- **Excepted quantities (EQ)** Code: E4
Maximum net quantity per inner packaging: 1 g
Maximum net quantity per outer packaging: 500 g

- **UN "Model Regulation":** UN 1564 BARIUM COMPOUND, N.O.S. (BARIUM CHROMATE), 6.1, II, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

- **Labelling according to Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



GHS06 GHS08 GHS09

- **Signal word** Danger

- **Hazard-determining components of labelling:**

barium chromate

- **Hazard statements**

- H302+H332 Harmful if swallowed or if inhaled.
- H311 Toxic in contact with skin.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**

- P201 Obtain special instructions before use.

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- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P273 Avoid release to the environment.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Directive 2012/18/EU

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category E1** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 47

· National regulations:

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

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

SECTION 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

- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H317 May cause an allergic skin reaction.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H340 May cause genetic defects.
- H350 May cause cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

· 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)
- IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
- ICAO: International Civil Aviation Organisation
- ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
- 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
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 3: Acute toxicity – Category 3
- Resp. Sens. 1: Respiratory sensitisation – Category 1
- Skin Sens. 1: Skin sensitisation – Category 1
- Muta. 1B: Germ cell mutagenicity – Category 1B
- Carc. 1A: Carcinogenicity – Category 1A
- Repr. 2: Reproductive toxicity – Category 2
- STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

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Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
· * **Data compared to the previous version altered.**