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|---|--|------------------------------|
| <a href="#">5,10,15,20-Tetraphenyl-21H,23H-porphine<br/>Manganese(III) Chloride</a>   |  | <a href="#">Pricing &gt;</a> |
| <small>           Linear Formula: <chem>C20H14N4MnCl2</chem><br/>           Pubchem ID: 5184721<br/>           MDL Number: 0020021123<br/>           EC No: 622-802-6<br/>           IUPAC Name: 5,10,15,20-tetraphenylporphyrin-22,24-dibenzochloride<br/>           Selfies/Smarts: <chem>c1ccc(cc1)c2c(c3c(c2)nc4c(c3)nc5c4)cc6ccccc6n5</chem><br/>           SMILES: <chem>c1ccc(cc1)c2c(c3c(c2)nc4c(c3)nc5c4)cc6ccccc6n5</chem><br/>           InChI Identifier: <chem>Cl[Mn](Cl)(c1ccc(cc1)c2c(c3c(c2)nc4c(c3)nc5c4)cc6ccccc6n5)cc6ccccc6n5</chem><br/>           InChI Key: MUMNNDEIYVIG-YNXPBTHGSA-M         </small> |  |                              |
| Signal Word   | Warning  |                              |
| Hazard Statements   | H315-H319-H335   |                              |
| Hazard Codes  | Xi   |                              |
| Precautionary Statements  | P261-P305+P351+P338  |                              |
| Risk Codes  | 36/37/38   |                              |
| Safety Statements   | 26-36  |                              |
| RTECS Number  | N/A  |                              |
| Transport Information   | NONH for all modes of transport  |                              |
| WGK Germany   | 3  |                              |
| GHS Pictograms  | <a href="#">GHS07</a><br><a href="#">Exclamation</a><br><a href="#">Point</a><br> |                              |

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## SAFETY DATA SHEET

Date Accessed: 05/17/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #32195-55-4

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture  
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Skin irritation (Category 2), H315  
Eye irritation (Category 2A), H319  
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

2.2 GHS Label elements, including precautionary statements



Pictogram  
Signal word Warning  
Hazard statement(s)  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
Precautionary statement(s)  
P261 Avoid breathing dust/ fume/ gas/ mist/ Vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ eye protection/ face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P332 + P313 If skin irritation occurs: Get medical

advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Synonyms : meso-Tetraphenylporphyrin  
manganese(III) chloride complex

Formula : C<sub>44</sub>H<sub>28</sub>ClMnN<sub>4</sub>

Molecular Weight : 703.11 g/mol

CAS-No. : 32195-55-4

Hazardous components

Component Classification Concentration

5,10,15,20-Tetraphenyl-21H,23H-

porphinemanganese(III) chloride

Skin Irrit. 2; Eye Irrit. 2A;

STOT SE 3; H315, H319,

H335

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## SECTION 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute

and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

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## **SECTION 5. FIREFIGHTING MEASURES**

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas,

Manganese/manganese oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing Vapors, mist or gas.

Ensure adequate

ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.

Sweep up and shovel. Keep in suitable, closed containers for

disposal.

6.4 Reference to other sections

For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of

dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166

Use equipment for eye protection tested and approved

under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after

use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich

Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone  
+49 (0)6659 87300, e-mail sales@kcl.de, test  
method:

EN374

If used in solution, or mixed with other substances,  
and under conditions which differ from EN 374,  
contact the  
supplier of the CE approved gloves. This  
recommendation is advisory only and must be  
evaluated by an  
industrial hygienist and safety officer familiar with the  
specific situation of anticipated use by our customers.  
It  
should not be construed as offering an approval for  
any specific use scenario.

Body Protection

impervious clothing, The type of protective equipment  
must be selected according to the concentration and  
amount of the dangerous substance at the specific  
workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1  
(EU EN 143) particle respirator. For higher level  
protection use type OV/AG/P99 (US) or type ABEK-  
P2 (EU EN 143) respirator cartridges. Use respirators  
and  
components tested and approved under appropriate  
government standards such as NIOSH (US) or CEN  
(EU).

Control of environmental exposure

Do not let product enter drains.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical  
properties

a) Appearance Form: powder

Colour: dark green

b) Odor no data available

c) Odor Threshold no data available

d) pH no data available

e) Melting point/freezing  
point

no data available

f) Initial boiling point and  
boiling range

no data available

g) Flash point no data available

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower

flammability or  
explosive limits  
no data available  
k) Vapor pressure no data available  
l) Vapor density no data available  
m) Relative density no data available  
n) Water solubility no data available  
o) Partition coefficient: noctanol/  
water  
no data available  
p) Auto-ignition  
temperature  
no data available  
q) Decomposition  
temperature  
no data available  
r) Viscosity no data available  
s) Explosive properties no data available  
t) Oxidizing properties no data available  
9.2 Other safety information  
no data available

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## **SECTION 10. STABILITY AND REACTIVITY**

10.1 Reactivity  
no data available  
10.2 Chemical stability  
Stable under recommended storage conditions.  
10.3 Possibility of hazardous reactions  
no data available  
10.4 Conditions to avoid  
no data available  
10.5 Incompatible materials  
Strong oxidizing agents  
10.6 Hazardous decomposition products  
Other decomposition products - no data available  
In the event of fire: see section 5

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects  
Acute toxicity  
no data available  
Dermal: no data available  
no data available  
Skin corrosion/irritation  
no data available  
Serious eye damage/eye irritation  
no data available  
Respiratory or skin sensitisation

no data available  
Germ cell mutagenicity  
no data available  
Carcinogenicity  
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  
Reproductive toxicity  
no data available  
no data available  
Specific target organ toxicity - single exposure  
Inhalation - May cause respiratory irritation.  
Specific target organ toxicity - repeated exposure  
no data available  
Aspiration hazard  
no data available  
Additional Information  
RTECS: Not available  
Men exposed to manganese dusts showed a decrease in fertility. Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness and weakness in the legs. A stolid mask-like appearance of the face, emotional disturbances such as uncontrollable laughter and a spastic gait with tendency to fall in walking are findings in more advanced cases. High incidence of pneumonia has been found in workers exposed to the dust or fume of some manganese compounds.  
Stomach - Irregularities - Based on Human Evidence  
Stomach - Irregularities - Based on Human Evidence

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## **SECTION 12. ECOLOGICAL INFORMATION**

12.1 Toxicity  
no data available  
12.2 Persistence and degradability  
no data available  
12.3 Bioaccumulative potential  
no data available  
12.4 Mobility in soil



no data available  
12.5 Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical  
safety assessment not required/not conducted  
12.6 Other adverse effects  
no data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

13.1 Waste treatment methods  
Product  
Offer surplus and non-recyclable solutions to a  
licensed disposal company. Contact a licensed  
professional waste  
disposal service to dispose of this material.  
Contaminated packaging  
Dispose of as unused product.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)  
Not dangerous goods  
IMDG  
Not dangerous goods  
IATA  
Not dangerous goods

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## **SECTION 15. REGULATORY INFORMATION**

SARA 302 Components  
SARA 302: No chemicals in this material are subject  
to the reporting requirements of SARA Title III,  
Section 302.  
SARA 313 Components  
SARA 313: This material does not contain any  
chemical components with known CAS numbers that  
exceed the  
threshold (De Minimis) reporting levels established by  
SARA Title III, Section 313.  
SARA 311/312 Hazards  
Acute Health Hazard, Chronic Health Hazard  
Massachusetts Right To Know Components  
No components are subject to the Massachusetts  
Right to Know Act.  
Pennsylvania Right To Know Components  
5,10,15,20-Tetraphenyl-21H,23H-  
porphinemanganese(III)  
chloride

CAS-No.  
32195-55-4  
Revision Date  
New Jersey Right To Know Components  
5,10,15,20-Tetraphenyl-21H,23H-  
porphinemanganese(III)  
chloride  
CAS-No.  
32195-55-4  
Revision Date  
California Prop. 65 Components  
This product does not contain any chemicals known to  
State of California to cause cancer, birth defects, or  
any other  
reproductive harm.

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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