

# Safety Data Sheet

Revision: 1.01  
Modified: 19/02/2013

## 1: Identification of substance / mixture

### 1. Product Identifier

Substance

Product Name **Managanese carbonyl**  
Product Code 050118  
CAS Number 10170-69-1  
Other Names  
IUPAC  
MFCN Number MFCD00011115  
EC/EINECS 233-445-6  
REACH Number

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

Research and Development

### 3. Details of the supplier of the safety data sheet

Aaron Chemistry GmbH  
Am Fischweiher 41–43  
82481 Mittenwald  
Germany



### 4. Emergency telephone number

+49–8823–917521

## 2. Hazards Identification

### 1. Classification of the substance or mixture

H301	Acute Tox. 3	R25, R23/25, R23/24/25, R24/25
H331	Acute Tox. 3	R23, R23/24, R23/25, R23/24/25, R23, R23/24, R23/25, R23/24/25, R23/34/35, R23/34/35

\* The risk codes have been generated using Annex VII of directive 67/548/EEC. Risk code combinations are not included.

### 2. Label elements

Signal Word **Danger**



### Hazard Statements

H301	Toxic if swallowed.
H331	Toxic if inhaled.

### Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P321	Specific treatment (see . on this label).
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

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## 3. Composition / Information on Ingredients

### 1. Substances

Manganese carbonyl

Assay:100% CAS Number :10170-69-1

### 2. Mixtures

Not Relevant

## 4. First Aid Measures

### 1. Description of first aid measures

<i>Skin Contact</i>	Wash immediately with plenty of soap and water.
<i>Eye Contact</i>	Rinse opened eye for several minutes under running water.
<i>Ingestion</i>	P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Wash out mouth with water. Transfer to hospital as soon as possible.
<i>Inhalation</i>	P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Supply fresh air; consult a doctor in case of complaints.

### 2. Most important symptoms and effects

There may be pain and redness.  
May cause permanent damage.  
There may be difficulty swallowing.

### 3. Indication of any immediate medical attention

P321: Specific treatment (see . on this label).  
No additional measures required

## 5. Firefighting measures

### 1. Extinguishing Media

*Suitable* Carbon dioxide.  
Alcohol resistant foam.  
Dry chemical powder.

*Unsuitable* no data

### 2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

### 3. Advice for Fire Fighters

Wear self-contained breathing apparatus.  
Wear protective clothing to prevent contact with skin and eyes.

## 6. Accidental Release Measures

### 1. Personal Precautions

Evacuate the area immediately.  
Do not attempt to take action without suitable protective clothing – see section 8 of SDS.

### 2. Environmental Precautions

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Do not discharge into drains or rivers.  
Contain the spillage using bunding.  
Alert the neighbourhood to the presence of fumes or gas.

## 3.Methods & Materials

Mix with sand or vermiculite.  
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

## 7.Handling and Storage

### 1.Personnal Precautions

*Safe Handling*                      Ensure there is sufficient ventilation of the area.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.

*Protection against  
explosions and fires*              Normal measures for preventive fire protection.

### 2.Conditions for safe storage, including any incompatibilities

*Managing Storage Risks*              Store in cool, well ventilated area.  
Keep container tightly closed.

*Storage Controls*                      No special requirements

*Maintaining Integrity*              Store away from oxidising agents  
Keep in tightly closed container in cool area away from direct sunlight or heat sources.

*Other advice*                              P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

### 3.Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

## 8.Exposure Controls/Personal Protection

### 1. Control Parameters

Not Applicable

### 2.Exposure Controls

*General protective and  
hygiene measures*                      Wash hands during breaks and at the end of handling the material  
Immediately remove any contaminated clothing

*Engineering measures*                      P271: Use only outdoors or in a well-ventilated area.  
Ensure there is sufficient ventilation of the area.

*Eye / Face Protection*                      Safety Glasses with side-shields.

*Hand protection*                              Protective gloves.

*Respiratory protection*                      P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
Self-contained breathing apparatus must be available in case of emergency.

*Skin protection*

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Handle with gloves.  
Gloves must be inspected prior to use.  
Use proper glove removal technique to avoid skin contact with this product.  
Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice.  
Wash and dry hands.  
Protective clothing.

*Other personal protection advice* no data

## 9. Physical and Chemical Properties

### 1. Physical and Chemical Properties

Appearance	Liquid
Odour	Not Applicable
Odour threshold	Not Applicable
PH	Not Applicable
Melting point / Freezing point	152-154°C
Initial boiling point and boiling range	80°C
Flash point	Not Applicable
Evaporation rate	Not Applicable
Flammability(solid,gas)	Not Applicable
Upper/lower flammability or explosive limits	Not Applicable
Vapour pressure	Not Applicable
Vapour density	Not Applicable
Relative density	1.75
Solubility(ies):	Organic solvents. Insoluble in water.
Partition coefficient: n-octanol/water	Not Applicable
Auto-ignition temperature	Not Applicable
Decomposition temperature	Not Applicable
Viscosity	Not Applicable
Explosive properties	Not Applicable
Oxidising properties	Not Applicable

### 2. Other Information

Air sensitive

## 10. Stability and Reactivity

### 1. Reactivity

no unusual reactivity

### 2. Stability

Stable under normal conditions.

### 3. Possibility of Hazardous Reactions

no hazardous reactions known

### 4. Conditions to Avoid

no specific conditions to avoid

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## 5. Incompatible Materials

Oxidising agents.

## 6. Hazardous Decomposition Products

In combustion emits toxic fumes.

## 11. Toxicology information

### 1. Information

<i>Acute Toxicity</i>	no data
<i>Skin corrosion/irritation</i>	irritant for skin and mucous membranes
<i>Serious eye Damage/irritation</i>	irritant effect
<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	not known
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

### 2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

## 12. Ecological Information

### 1. Toxicity

not known

### 2. Persistence and degradability

not known

### 3. Bio-Accumulative Potential

not known

### 4. Mobility and Soil

not known

### 5. Results of PBT & vPvB assessment

not known

### 6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

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## 13. Disposal Considerations

### 1. Waste Treatment Methods

*Disposal Operations*

*Disposal of Packaging* Disposal must be made according to official regulations.

## 14. Transport Information

### Air (ICAO)

1. **UN Number:** 3466
2. **UN proper shipping name:** Metal carbonyls, solid, n.o.s. «
3. **Transport hazard class(es):** Class: 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

### Road (ADR)

1. **UN Number:** 3466
2. **UN proper shipping name:** METAL CARBONYLS, SOLID, N.O.S.
3. **Transport hazard class(es):** Class: 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:** For the purposes of documentation and package marking, the Proper Shipping Name shall be supplemented with the technical name (see 3.1.2.8.1).
7. **Transport in bulk:**

### Sea (IMDG)

1. **UN Number:** 3466
2. **UN proper shipping name:** Metal carbonyls, solid, n.o.s. «
3. **Transport hazard class(es):** Class: 6.1 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:** IBCINS: IBC08  
IBCPROV: B3  
UNTANKINS: T1  
TANKPROV: TP33

## 15. Safety, health and environmental regulations

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product is not subject to any additional regulations or provisions

## 2. Safety Assessment

No Chemical Safety Assessment

## 16. Other Information

### 1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by road)  
RID: Reglement 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  
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the ICAO  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
CAS: Chemical Abstracts Service

### 2. Associated risk phrases according to european directive 67/548/EEC

R23	Toxic by inhalation.
R23/24	Toxic by inhalation and in contact with skin.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R23/25	Toxic by inhalation and if swallowed.
R24/25	Toxic in contact with skin and if swallowed.
R25	Toxic if swallowed.



### 3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.