MANGANESE(II) CHLORIDE TETRAHYDRATE

MA0122 Manganese(II) chloride tetrahydrate, EssentQ®

- $MnCl_2 \cdot 4H_2O$
- M = 197,91 g/mol
- CAS [13446-34-9]
- EINECS-No.: 231-869-6
- Solub. in water: (20 °C): soluble
- Melting point: 58 °C
- LD 50 (oral, rat): 1484 mg/kg
- GHS-signal word: Warning
- GHS-H sentences: H302
- GHS-P sentences: P264 - P270 - P330 - P301 + P312 - P501a
- Tariff number: 2827 39 85 90
- Applications: analytical chemistry, for determination of: dissolved oxygen.

assay (complexometric) . . . . . 98 - 102 %
insoluble in water . . . . . max. 0,025 %
pH (5 %, H_2O) . . . . . 3,5 - 6,0
sulfates (SO_4) . . . . . max. 0,025 %
calcium (Ca) . . . . . max. 0,1 %
heavy metals (as Pb) . . . . . max. 0,002 %
iron (Fe) . . . . . max. 0,001 %
lead (Pb) . . . . . max. 0,001 %
nickel (Ni) . . . . . max. 0,005 %
zinc (Zn) . . . . . max. 0,01 %

ART. NO.	VOLUME	CONTAINER
MA01220500	500 g	P
MA01221000	1 kg	P

MANGANESE(II) NITRATE TETRAHYDRATE

MA0123 Manganese(II) nitrate tetrahydrate, ExpertQ®, for analysis

- $Mn(NO_3)_2 \cdot 4H_2O$
- M = 251,01 g/mol
- CAS [20694-39-7]
- EINECS-No.: 233-828-8
- Solub. in water: (20 °C): 3800 g/l
- Melting point: 37 °C
- ADR: 5.1 O2 III UN 2724
- IMDG: 5.1 III UN 2724
- IATA/ICAO: 5.1 III UN 2724
- GHS-signal word: Danger
- GHS-H sentences: H272
- GHS-P sentences: P221 - P210 - P220 - P280 - P370 + P378a - P501a
- Tariff number: 2834 29 80 00
- Applications: analytical chemistry, laboratory reagent, for the synthesis of: MnO_2; in porcelain industry.

assay (complexometric) . . . . . min. 98,5 %
pH (5 %, H_2O) . . . . . 2,8 - 3,6
chlorides (Cl) . . . . . max. 0,001 %
sulfates (SO_4) . . . . . max. 0,005 %
ammonium (NH_4) . . . . . max. 0,05 %
calcium (Ca) . . . . . max. 0,001 %
copper (Cu) . . . . . max. 5 ppm
iron (Fe) . . . . . max. 5 ppm
lead (Pb) . . . . . max. 0,001 %
magnesium (Mg) . . . . . max. 0,005 %
nickel (Ni) . . . . . max. 5 ppm
potassium (K) . . . . . max. 0,005 %
sodium (Na) . . . . . max. 0,005 %
zinc (Zn) . . . . . max. 0,001 %

ART. NO.	VOLUME	CONTAINER
MA01230500	500 g	P
MA01231000	1 kg	P
MA0123005P	5 kg	P

MANGANESE(IV) OXIDE

- Synonyms: Manganese dioxide, Pyrolusite, Black manganese oxide, Manganese superoxide
- MnO_2
- M = 86,94 g/mol
- CAS [1313-13-9]
- EINECS-No.: 215-202-6
- Solub. in water: (20 °C): insoluble
- Melting point: 535 °C (decomposes)
- EC-Index-No.: 025-001-00-3
- ADR: 5.1 O2 II UN 1479
- IMDG: 5.1 II UN 1479
- IATA/ICAO: 5.1 II UN 1479
- GHS-signal word: Warning
- GHS-H sentences: H302 - H332
- GHS-P sentences: P261 - P264 - P270 - P304 + P340 - P330 - P501a
- Tariff number: 2820 10 00 90
- Applications: laboratory reagent, in building materials, oxidizing agent, electrolyte for batteries, manufacture of glass, painting (in porcelain industry), manufacture of dyes (in the textile industry), pigment.
- Appearance: Dark grey to black powder

MA0126 Manganese(IV) oxide, EssentQ®

assay (permanganometric) . . . . . approx . 90 %

ART. NO.	VOLUME	CONTAINER
MA01260500	500 g	P
MA01261000	1 kg	P

ART. NO.	VOLUME	CONTAINER
MA0126005P	5 kg	P

MA0125 Manganese(IV) oxide, 90%, EssentQ®

assay (permanganometric) . . . . . approx . 90 %
insoluble in HCl . . . . . max. 0,05 %
chlorides (Cl) . . . . . max. 0,05 %
sulfates (SO_4) . . . . . max. 0,1 %
silicium dioxide (SiO_2) . . . . . max. 3 %
iron (Fe) . . . . . max. 1 %
loss on drying (105 °C) . . . . . max. 1 %

ART. NO.	VOLUME	CONTAINER
MA01250100	100 g	P
MA01250500	500 g	P

MANGANESE(II) SULFATE MONOHYDRATE

- $MnSO_4 \cdot H_2O$
- M = 169,02 g/mol
- CAS [10034-96-5]
- EINECS-No.: 232-089-9
- Solub. in water: (20 °C): 762 g/l
- Melting point: 117 °C (decomposes)
- EC-Index-No.: 025-003-00-4
- ADR: 9 M7 III UN 3077
- IMDG: 9 III UN 3077
- IATA/ICAO: 9 III UN 3077
- GHS-signal word: Warning
- GHS-H sentences: H373 - H411
- GHS-P sentences: P260 - P273 - P314 - P391 - P501a
- Tariff number: 2833 29 90 00
- Applications: analytical chemistry, in porcelain industry.