



according to Regulation (EC) No 1907/2006 (REACH)

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

- **1.1 Product identifier:** Emulex 2 plus
- **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**
Explosives for commercial use.
Note the manufacturer's product information.
Use the product only within the framework of existing laws and regulatory approvals.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
AUSTIN POWDER GmbH
Weissenbach 16
A-8813 St. Lambrecht
Telefon +43(0)3585/2251
E-Mail: sdb@austinpowder.at
- **Information department:**
AUSTIN POWDER GmbH, (Mo – Fr 6:00 – 13:00): +43(0)3585-2251
E-Mail: sdb@austinpowder.at
- **1.4 Emergency telephone number:** Poison Control Center: +43 (01) 406 43 43

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Expl. 1.1 H201 Explosive; mass explosion hazard.
Ox. Sol. 2 H272 May intensify fire; oxidiser.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
Xn; Harmful
R22: Harmful if swallowed.
.....
Xi; Irritant
R36/38: Irritating to eyes and skin.
.....
E; Explosive
R2: Risk of explosion by shock, friction, fire or other sources of ignition.
.....
O; Oxidising
R8-9: Contact with combustible material may cause fire. Explosive when mixed with combustible material.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation. In terms of labelling the derogation according to Art. 23e in conjunction with Appendix I, section 1.3.5 und 2.1 is claimed.

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· **Hazard pictograms**



GHS01

· **Signal word** Danger

· **Hazard statements**

H201 Explosive; mass explosion hazard.

· **Precautionary statements**

- P221 Take any precaution to avoid mixing with combustibles.
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P250 Do not subject to grinding/shock/friction.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P373 DO NOT fight fire when fire reaches explosives.
- P370+P380 In case of fire: Evacuate area.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P372 Explosion risk in case of fire.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P401 Store in accordance with local/regional/national/international regulations.
- 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

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 6484-52-2 EINECS: 229-347-8 Reg.nr.: 01-2119490981-27	ammonium nitrate ⊗ Xi R36; 🔥 O R8-9 ⚠ Ox. Sol. 2, H272; ⚠ Eye Irrit. 2, H319	50-80%
CAS: 7631-99-4 EINECS: 231-554-3 Reg.nr.: 01-2119488221-41	sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen ⊗ Xn R22; ⊗ Xi R36/37/38; 🔥 O R8 ⚠ Ox. Sol. 2, H272; ⚠ Acute Tox. 4, H302; ⚠ Skin Irrit. 2, H315; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335	10-25%
CAS: 7429-90-5 EINECS: 231-072-3	aluminium powder (pyrophoric) 🔥 F R15-17 ⚠ Pyr. Sol. 1, H250; ⚠ Water-react. 2, H261	0.1 - 10%

· **Additional information** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information**

- Immediately remove any clothing soiled by the product.
- Personal protection for the First Aider.
- Take affected persons out of danger area and lay down.

· **After inhalation**

- Take affected persons into fresh air and keep quiet.
- Seek immediate medical advice.

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.

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- **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing** Rinse out mouth, seek medical treatment.
- **4.2 Most important symptoms and effects, both acute and delayed**
Symptoms of poisoning may even occur after several hours, therefore medical observation for at least 48 hours after the accident.
Symptoms include methemoglobin formation through NO contact, pulmonary edema with a latency up to 48 hours.
In men with frequent inhalation: erectile dysfunction to impotency.
- **Information for doctor**
Particularly for the prevention of pulmonary edema cortisone must be administered by inhalation (depending on the type of drug 5-10 inhalations)
Medical supervision of the patient at least for 72-96 hours.
- **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** Explosive material, no fire-fighting!
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Ammonia (NH₃)-fumes

If product is directly involved in the fire:
Explosion hazard - no fire fighting. Warn and evacuate the area. At least 300 m away for cover.
If product is not directly involved in the fire:
The fire from spreading to the product must avoid If possible remove product from the danger zone.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Announcing risk of explosion !

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Keep away from ignition sources
All persons whose presence is not necessary to remove from the affected area
Avoid contact with skin, clothes and eyes.
Avoid shock or friction
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
In case of seepage into the ground inform responsible authorities.
- **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Announcing risk of explosion !
- **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.
Handle with care. Avoid jolting, friction and impact.

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Keep away from heat and direct sunlight.
Prevent formation of dust.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.
Fire extinguishers provide.
Keep respiratory protective device available.
Use explosion-proof apparatus / fittings and spark-proof tools.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:** For storage is required a national permit.

· **Information about storage in one common storage facility:**

Store away from oxidising agents.
Store away from reducing agents.
Store separately from oxidising and spontaneously flammable substances.

· **Further information about storage conditions:** Store receptacle in a well ventilated area.

· **Recommended storage temperature:** Do not store below 5 °C or above 30 °C.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:**

7429-90-5 aluminium powder (pyrophoric) (2.5-10%)

WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· **Breathing equipment:** Not necessary if room is well-ventilated.

· **Protection of hands:**

Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
None required during handling of packaged products, in the cases of direct contact with the explosive mass
Gloves:

· **Material of gloves**

Nitrile rubber, NBR
Neoprene 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.

· **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing.

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SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form: plastic to solid ground, covered in plastic cartridges

Colour: White

to gray

· **Odour:** Odourless

· **Change in condition**

Boiling point/Boiling range: undetermined

· **Flash point:** Not applicable

· **Ignition temperature:**

Decomposition temperature: > 170 °C

· **Self igniting:** Product is not selfigniting.

· **Danger of explosion:** Risk of explosion by shock, friction, fire or other sources of ignition.
Heating may cause an explosion.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1.1 - 1.3 g/cm³

· **Solubility in / Miscibility with**

Water: Soluble

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** Risk of explosion by shock, friction, fire or other sources of ignition.

· **10.2 Chemical stability** The product is chemically stable under the recommended conditions of use.

· **Conditions to avoid:**

Avoid: heat, flames, sparks.

Shock, friction (explosive hazard)

· **10.3 Possibility of hazardous reactions** Thermal decomposition begins at 170 °C;

· **10.5 Incompatible materials:**

Acids

alkali (lyes)

Avoid contaminations with other chemical/substances, especially chlorid-containing compounds, copper, brass i.a. copper-alloy, chromate and zinc.

· **10.6 Hazardous decomposition products:**

Nitrogen oxides (NO_x)

Carbon monoxide and carbon dioxide

Ammonia

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitisation:** No sensitising effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful, irritant

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Easily biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Type of test Effective concentration Method Assessment**
Ammonium nitrate, CAS 6484-52-2
to aquatic organisms: LD50/96 h 10 - 100 ppm
for fish 800 mg / L lethal in 3.9 hours
Sodium nitrate; 7631-99-4
Toxicity to fish LC50> 1000 mg / L 96 h
Daphnia Daphnia LC50> 1000 mg / L 24 h
- **Additional ecological information:**
- **General notes:**
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.
- **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**
Must be specially treated adhering to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**
The disposal codes of the European list of wastes depend on the country of origin of the waste. This product has got identified uses in a various industries. This is, why a definite disposal code cannot be stated. The disposal code should be selected in agreement with disposer and/or the competent Authority.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---|--------------------------------------|
| · 14.1 UN-Number | UN0241 |
| · ADR, IMDG | UN0241 |
| · 14.2 UN proper shipping name | 0241 Sprengstoff, Typ E |
| · ADR | 0241 Sprengstoff, Typ E |
| · 14.3 Transport hazard class(es) | |
| · ADR, IMDG, IATA | |
|  | |
| · Class | 1 Explosive substances and articles. |
| · Label | 1 |
| · 14.4 Packing group | |
| · ADR, IMDG | Void |

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· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Explosive substances and articles.
· EMS Number:	F-B,S-X
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Tunnel restriction code	B1000C
· IATA	
· Remarks:	Air transport ICAO-IATA/DGR Prohibited
· UN "Model Regulation":	UN0241, 0241, 1.1D (1)

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Liability about information is not warranted although information is given to our best knowledge.

· **Relevant phrases**

- H250 Catches fire spontaneously if exposed to air.
- H261 In contact with water releases flammable gases.
- H272 May intensify fire; oxidiser.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- R15 Contact with water liberates extremely flammable gases.
- R17 Spontaneously flammable in air.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R8 Contact with combustible material may cause fire.
- R9 Explosive when mixed with combustible material.

· **Recommended restriction of use**

Handling of explosives is permitted only to persons with the appropriate permission.

· **Department issuing MSDS:** Labor Austin Powder

· **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)
- ICAO: International Civil Aviation Organisation
- 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)
- Expl. 1.1: Explosives, Division 1.1
- Pyr. Sol. 1: Pyrophoric Solids, Hazard Category 1
- Water-react. 2: Substances and Mixtures which, in contact with water, emit flammable gases, Hazard Category 2

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Ox. Sol. 2: Oxidising Solids, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
* **Data compared to the previous version altered.**