

SECTION 1: Identification of the substance / preparation and of the company
1.1 Product identifier

Cyano Ex
Article number 152 272

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant uses

Solvent

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

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47269 Duisburg / GERMANY
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Fax +49 (0)203 29 92 83
Homepage www.hagerwerken.de
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Address enquiries to

Technical information info@hagerwerken.de

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency phone

Advisory body +49 (0) 551-19240 (24h)

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture
2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

see SECTION 16

2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC
Hazard symbols


Highly flammable



Irritant

R-phrases

R 11: Highly flammable.
R 36: Irritating to eyes.
R 66: Repeated exposure may cause skin dryness or cracking.
R 67: Vapours may cause drowsiness and dizziness.

2.2 Label elements
Labelling according to Regulation 67/548/EEC or 1999/45/EC

The product is classified and required to be labelled in accordance with EC-Directives

Hazard symbols


Highly flammable



Irritant

R-phrases

R 11: Highly flammable.
R 36: Irritating to eyes.
R 66: Repeated exposure may cause skin dryness or cracking.
R 67: Vapours may cause drowsiness and dizziness.

S-phrases

S 2: Keep out of the reach of children.
S 9: Keep container in a well-ventilated place.
S 16: Keep away from sources of ignition - No smoking.
S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 29: Do not empty into drains.
S 33: Take precautionary measures against static discharges.
S 46: If swallowed, seek medical advice immediately and show this container or label.

2.3 Other hazards

Human health dangers

Has a degreasing effect on the skin.

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

| Range [%] | Substance |
|-----------|---|
| 50 - <100 | Acetone |
| | CAS: 67-64-1, EINECS/ELINCS: 200-662-2, EU-INDEX: 606-001-00-8 |
| | GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319 - STOT SE 3: H336 - EUH066 |
| | EEC: F-Xi, R 11-36-66-67 |
| 25 - 50 | Ethyl acetate |
| | CAS: 141-78-6, EINECS/ELINCS: 205-500-4, EU-INDEX: 607-022-00-5 |
| | GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319 - STOT SE 3: H336 - EUH066 |
| | EEC: F-Xi, R 11-36-66-67 |

Comment on component parts
Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.
For full text of H-statements and R-phrases: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Change soaked clothing immediately.

Inhalation
Ensure supply of fresh air.
In the event of symptoms seek for medical treatment.
Skin contact
When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.
Eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

Ingestion
Consult a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to the doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
Alcohol-resistant foam.
Carbon dioxide.
Dry powder.
Water spray jet.
Extinguishing media that must not be used

Full water jet

5.2 Special hazards arising from the substance or mixture

Unknown risk of formation of toxic pyrolysis products.
Carbon monoxide (CO), irritant gases/vapours.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Do not inhale explosion and/or combustion gases.
Wear full protective suit.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.
Ensure adequate ventilation.
Use personal protective equipment.
Keep people away and stay on the upwind side.

6.2 Environmental precautions

Do not discharge into the drains. Risk of explosion!
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Provide good room ventilation even at ground level (vapours are heavier than air).
Vacuuming in situ required.
Avoid spilling or spraying in enclosed areas.
Use solvent-resistant equipment.
Keep away from all sources of ignition - Refrain from smoking.
Take precautionary measures against static discharges.
Vapours can form an explosive mixture with air.
Ignitable mixtures can be formed in the empty container.
Do not eat, drink, smoke or take drugs at work.
Remove soiled or soaked clothing immediately.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Provide solvent-resistant and impermeable floor.
Do not store with combustible materials.
Keep container tightly closed.
Keep container in a well-ventilated place.
Protect from heat/overheating and from sun.
Keep in a cool place.
Recommended storage temperature: 15-25 °C.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection
8.1 Control parameters
Ingredients with occupational exposure limits to be monitored (GB)

| Range [%] | Substance |
|-----------|---|
| 50 - <100 | Acetone |
| | CAS: 67-64-1, EINECS/ELINCS: 200-662-2, EU-INDEX: 606-001-00-8 |
| | Long-term exposure: 500 ppm, 1210 mg/m ³ |
| | Short-term exposure (15-minute): 1500 ppm, 3620 mg/m ³ |
| 25 - 50 | Ethyl acetate |
| | CAS: 141-78-6, EINECS/ELINCS: 205-500-4, EU-INDEX: 607-022-00-5 |
| | Long-term exposure: 200 ppm |
| | Short-term exposure (15-minute): 400 ppm |

Ingredients with occupational exposure limits to be monitored (EU)

| Range [%] | Substance / EC LIMIT VALUES |
|-----------|--|
| 50 - <100 | Acetone |
| | CAS: 67-64-1, EINECS/ELINCS: 200-662-2, EU-INDEX: 606-001-00-8 |
| | Eight hours: 500 ppm, 1210 mg/m ³ |

8.2 Exposure controls

| | |
|--|--|
| Additional advice on system design | Ensure adequate ventilation on workstation. Use suitable exhaust ventilation. |
| Eye protection | Tightly fitting goggles. |
| Hand protection | The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: Butyl rubber, >480 min (EN 374). In splash contact Nitrile rubber, >480 min (EN 374). |
| Skin protection | Solvent-resistant protective clothing. |
| Other | Do not breathe vapour/spray. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier. |
| Respiratory protection | Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, filter AX. |
| Thermal hazards | not applicable |
| Delimitation and monitoring of the environmental exposition | not determined |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|--------------------|
| Form | liquid |
| Color | colourless |
| Odor | characteristic |
| Odour threshold | not determined |
| pH-value | not applicable |
| pH-value [1%] | not determined |
| Boiling point [°C] | 56 |
| Flash point [°C] | - 19 |
| Flammability [°C] | 460 |
| Lower explosion limit | 2,1 Vol % |
| Upper explosion limit | 13,0 Vol % |
| Oxidizing properties | no |
| Vapour pressure/gas pressure [kPa] | 24,7 (20°C) |
| Density [g/ml] | 0,82 |
| Bulk density [kg/m ³] | not applicable |
| Solubility in water | partially miscible |
| Partition coefficient [n-octanol/water] | not determined |
| Viscosity | not determined |
| Relative vapour density determined in air | not determined |
| Evaporation speed | not determined |
| Melting point [°C] | not determined |
| Autoignition temperature [°C] | no |
| Decomposition temperature [°C] | not determined |

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

Forms explosive mixtures with air on intense heating.
Evolution of highly flammable gases/vapours.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.
Reactions with reducing agents.

10.4 Conditions to avoid

See SECTION 7.2.
Strong heating.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Range [%] | Substance |
|-----------|---|
| 50 - <100 | Acetone, CAS: 67-64-1 |
| | LC50, inhalative, Rat: 76 mg/l (4h) (IUCLID). |
| | LD50, dermal, Rabbit: 20000 mg/kg (IUCLID). |
| | LD50, oral, Rat: 5800 mg/kg (IUCLID). |
| 25 - 50 | Ethyl acetate, CAS: 141-78-6 |
| | LD50, oral, Rat: 5620 mg/kg. |
| | LC50, inhalative, Rat: 5,86mg/l (8h). |
| | LD50, dermal, Rabbit: > 18000 mg/kg. |

| | |
|---|----------------|
| Serious eye damage/irritation | Irritant |
| Skin corrosion/irritation | Non-irritant. |
| Respiratory or skin sensitisation | not determined |
| Specific target organ toxicity — single exposure | not determined |
| Specific target organ toxicity — repeated exposure | not determined |
| Mutagenicity | not determined |
| Reproduction toxicity | not determined |
| Carcinogenicity | not determined |
| General remarks | |

The product was classified on the basis of the calculation procedure of the preparation directive.

SECTION 12: Ecological information

12.1 Toxicity

| Range [%] | Substance |
|-----------|---|
| 50 - <100 | Acetone, CAS: 67-64-1 |
| | EC50, (48h), Daphnia magna: 6100 mg/l (Lit.). |
| | LC50, (96h), Oncorhynchus mykiss: 5540 mg/l (Lit.). |
| 25 - 50 | Ethyl acetate, CAS: 141-78-6 |
| | EC50, (48h), Daphnia magna: 717 mg/l. |
| | LC50, (96h), fish: 230 mg/l. |
| | IC50, (48h), Algae: 3300 mg/l. |

12.2 Persistence and degradability

| | |
|--|----------------|
| Behaviour in environment compartments | not determined |
| Behaviour in sewage plant | not determined |
| Biological degradability | not determined |

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

Ecological data of complete product are not available.

Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended)

070104*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110*

SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

14.2 UN proper shipping name

Transport by land according to ADR/RID UN 1993 Flammable liquid, n.o.s. (Acetone, Ethyl acetate mixture) 3 II

- Classification Code

F1

- Label



- ADR LQ

1 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 2 (D/E)

Inland navigation (ADN)

UN 1993 Flammable liquid, n.o.s. (Acetone, Ethyl acetate mixture) 3 II

- Classification Code

F1

- Label



Marine transport in accordance with IMDG

UN 1993 Flammable liquid, n.o.s. (Acetone, Ethyl acetate mixture) 3 II

- EMS

F-E, S-E

- Label



- IMDG LQ

1 I

Air transport in accordance with IATA UN 1993 Flammable liquid, n.o.s. (Acetone, Ethyl acetate mixture) 3 II

- Label



14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

| | |
|--|---|
| EEC-REGULATIONS | 1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC |
| TRANSPORT-REGULATIONS | DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013). |
| NATIONAL REGULATIONS (GB): | EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4 |
| - Observe employment restrictions for people | yes |
| - VOC (1999/13/CE) | 100 % |

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**16.1 Classification according to Regulation (EC) No 1272/2008 [CLP]****Hazard pictograms****Signal word**

DANGER

Flam. Liq. 2: H225 Highly flammable liquid and vapour.
Eye Irrit. 2: H319 Causes serious eye irritation.
STOT SE 3: H336 May cause drowsiness or dizziness.

Classification procedure

EUH066 Repeated exposure may cause skin dryness or cracking.
Classification according to conversion table Annex VII 1272/2008/EC

16.2 R-phrases (SECTION 3)

R 11: Highly flammable.
R 36: Irritating to eyes.
R 66: Repeated exposure may cause skin dryness or cracking.
R 67: Vapours may cause drowsiness and dizziness.

16.3 Hazard statements (SECTION 3)

EUH066 Repeated exposure may cause skin dryness or cracking.
H336 May cause drowsiness or dizziness.
H319 Causes serious eye irritation.
H225 Highly flammable liquid and vapour.

16.4 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.5 Other information**Customs Tariff**

not determined

Modified position

none



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