

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201  
Print date: 21.11.2018  
Version: 3.7

FEYCARBON Härter HS 420  
Revision date: 11.10.2018  
Issue date: 11.10.2018

999998 EN  
Page 1 / 8

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

**1.1. product identifiers**

Article No. (manufacturer/supplier) 114-4201  
Identification of the substance or mixture FEYCARBON Härter HS 420  
schnell

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

**Relevant identified uses:**

Hardener for 2 component polyurethane resins or coatings

**1.3. Details of the supplier of the safety data sheet**

**manufacturer**

FEYCOLOR GmbH  
Maxhuettenstraße 6  
93055 Regensburg

Telephone: 0049 (0)941/60 49 7-0  
Telefax: 0049 (0)941/60 49 7-30  
E-mail info@feycolor.com  
Website: www.feycolor.com

**Dept. responsible for information:**

Department for dangerous goods 0049 (0)941/60 49 7-0  
E-mail (competent person) sd@feycolor.com

**1.4. Emergency telephone number**

Emergency telephone number +49 (0) 700 24 11 21 12 (FCM)  
Österreichische Vergiftungsinformationszentrale +43 (0) 1406 43 43

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



**Warning**

**Hazard statements**

H226 Flammable liquid and vapour.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof electrical equipment.  
P280 Wear protective gloves and eye/face protection.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P308 + P313 IF exposed or concerned: Get medical advice/attention.  
P405 Keep locked up.  
P501 Dispose of contents/container to industrial incineration plant.

**Hazard components for labelling**

1,6-Hexamethylene diisocyanate homopolymer  
n-butyl acetate

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201  
Print date: 21.11.2018  
Version: 3.7

FEYCARBON Härter HS 420  
Revision date: 11.10.2018  
Issue date: 11.10.2018

999998 EN  
Page 2 / 8

**Supplemental Hazard information (EU)**

EUH066 Repeated exposure may cause skin dryness or cracking.  
EUH204 Contains isocyanates. May produce an allergic reaction.

**2.3. Other hazards**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**SECTION 3: Composition / information on ingredients**

**3.2. Mixtures**

**Product description / chemical characterization**

**Description**

**Hazardous ingredients**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification // Remark	Wt %
500-060-2 28182-81-2	01-2119485796-17 1,6-Hexamethylene diisocyanate homopolymer Acute Tox. 4 H332 / Skin Sens. 1 H317 / STOT SE 3 H335	50 < 100
204-658-1 123-86-4 607-025-00-1	01-2119485493-29 n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	25 < 50
205-500-4 141-78-6 607-022-00-5	01-2119475103-46 Ethyl acetate Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	1 < 5
204-550-4 122-51-0	Triethyle orthoformiate Flam. Liq. 3 H226	1 < 5

**Additional information**

Full text of classification: see section 16

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**In case of inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

**4.2. Most important symptoms and effects, both acute and delayed**

In all cases of doubt, or when symptoms persist, seek medical advice.

**4.3. Indication of any immediate medical attention and special treatment needed**

No special measures are necessary.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media:**

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR**<sup>®</sup>

Article No.: 114-4201  
Print date: 21.11.2018  
Version: 3.7

FEYCARBON Härter HS 420  
Revision date: 11.10.2018  
Issue date: 11.10.2018

999998 EN  
Page 3 / 8

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

**Extinguishing media which must not be used for safety reasons:**

strong water jet

**5.2. Special hazards arising from the substance or mixture**

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

**5.3. Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

**6.3. Methods and material for containment and cleaning up**

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

**6.4. Reference to other sections**

Observe protective provisions (see section 7 and 8).

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**

Vapours are heavier than air. Vapours form explosive mixtures with air.

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

**Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

**7.3. Specific end use(s)**

Observe technical data sheet.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limit values:**

n-butyl acetate

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201  
Print date: 21.11.2018  
Version: 3.7

FEYCARBON Härter HS 420  
Revision date: 11.10.2018  
Issue date: 11.10.2018

999998 EN  
Page 4 / 8

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

MEL/OES, TWA: 724 mg/m<sup>3</sup>; 150 ppm

MEL/OES, STEL: 966 mg/m<sup>3</sup>; 200 ppm

Ethyl acetate

INDEX No. 607-022-00-5 / EC No. 205-500-4 / CAS No. 141-78-6

WEL, TWA: 730 mg/m<sup>3</sup>; 200 ppm

WEL, STEL: 1460 mg/m<sup>3</sup>; 400 ppm

**Additional information**

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

**8.2. Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Occupational exposure controls**

**Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

**Hand protection**

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material 0,7 mm; Breakthrough time (maximum wearing time) 60 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye protection**

Wear closely fitting protective glasses in case of splashes.

**Protective clothing**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

**SECTION 9: Physical and chemical properties**

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

**Appearance:**

**Physical state:**

**Liquid**

**Colour:**

**refer to label**

**Odour:**

**characteristic**

**Odour threshold:**

**not applicable**

**pH at 20 °C:**

**n.a.**

**Melting point/freezing point:**

**not applicable**

**Initial boiling point and boiling range:**

**77 °C**

Source: Ethyl acetate

**Flash point:**

**26 °C**

**Evaporation rate:**

**not applicable**

**Flammability (solid, gas):**

**Burning time (s):**

**not applicable**

**Upper/lower flammability or explosive limits:**

**Lower explosion limit:**

**3 Vol-%**

**Upper explosion limit:**

**10,4 Vol-%**

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201  
Print date: 21.11.2018  
Version: 3.7

FEYCARBON Härter HS 420  
Revision date: 11.10.2018  
Issue date: 11.10.2018

999998 EN  
Page 5 / 8

Source: n-butyl acetate

**Vapour pressure at20 °C:** 4,7676 mbar  
**Vapour density:** not applicable  
**Relative density:**  
**Density at20 °C:** 1,02 g/cm<sup>3</sup>  
**Solubility(ies):**  
**Water solubility (g/L) at20 °C:** insoluble  
**Partition coefficient: n-octanol/water:** see section 12  
**Auto-ignition temperature:** 200 °C  
**Decomposition temperature:** not applicable  
**Viscosity at20 °C:** > 11 s 4 mm

Method: DIN 53211

**Explosive properties:** not applicable  
**Oxidising properties:** not applicable

9.2. **Other information**

**Solid content (%):** 56 Wt %  
**solvent content:**  
**Organic solvents:** 44,10 Wt %  
**Water:** 0,00 Wt %  
**Solvent separation test (%):** < 3 Wt % (ADR/RID)

**SECTION 10: Stability and reactivity**

10.1. **Reactivity**

No information available.

10.2. **Chemical stability**

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

No information available.

10.6. **Hazardous decomposition products**

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

**SECTION 11: Toxicological information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

No data on preparation itself available.

11.1. **Information on toxicological effects**

**Acute toxicity, calculated:**

ATEmix calculated, inhalative (vapours): > 20 mg/l

**Acute toxicity**

n-butyl acetate

oral, LD50, Rat: 14000 mg/kg

inhalative (vapours), LC50, Rat: > 21 mg/l (4 h)

1,6-Hexamethylene diisocyanate homopolymer

inhalative (vapours), LC50, Rat: (4 h)

Harmful if inhaled.

**skin corrosion/irritation; Serious eye damage/eye irritation**

Based on available data, the classification criteria are not met.

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201 FEYCARBON Härter HS 420  
Print date: 21.11.2018 Revision date: 11.10.2018  
Version: 3.7 Issue date: 11.10.2018

999998 EN  
Page 6 / 8

**Respiratory or skin sensitisation**

1,6-Hexamethylene diisocyanate homopolymer

Skin:

May cause an allergic skin reaction.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Based on available data, the classification criteria are not met.

**Specific target organ toxicity**

n-butyl acetate

Specific target organ toxicity (single exposure), drowsiness:

May cause drowsiness or dizziness.

1,6-Hexamethylene diisocyanate homopolymer

Specific target organ toxicity (single exposure), Irritation:

May cause respiratory irritation.

**Practical experience/human evidence**

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

**Remark**

There is no information available on the preparation itself .

**SECTION 12: Ecological information**

**overall evaluation**

Classification according to Regulation (EC) No 1272/2008 [CLP]

There is no information available on the preparation itself .

Do not allow to enter into surface water or drains.

**12.1. Toxicity**

Toxicological data are not available.

**Long-term Ecotoxicity**

Toxicological data are not available.

**12.2. Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential**

No information available.

**Bioconcentration factor (BCF)**

No information available.

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Appropriate disposal / Product  
Recommendation**

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201  
Print date: 21.11.2018  
Version: 3.7

FEYCARBON Härter HS 420  
Revision date: 11.10.2018  
Issue date: 11.10.2018

999998 EN  
Page 7 / 8

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**List of proposed waste codes/waste designations in accordance with EWC**

080111 Waste paint and varnish containing organic solvents or other dangerous substances

**packaging**

**Recommendation**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

**SECTION 14: Transport information**

**14.1. UN number**

UN 1263

**14.2. UN proper shipping name**

Land transport (ADR/RID):

Paint related material

Sea transport (IMDG):

PAINT RELATED MATERIAL

Air transport (ICAO-TI / IATA-DGR):

Paint related material

**14.3. Transport hazard class(es)**

3

**14.4. Packing group**

III

**14.5. Environmental hazards**

Land transport (ADR/RID)

not applicable

Marine pollutant

not applicable

**14.6. Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**Further information**

**Land transport (ADR/RID)**

tunnel restriction code

D/E

**Sea transport (IMDG)**

EmS-No.

F-E, S-E

**Air transport (ICAO-TI / IATA-DGR)**

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU legislation**

**Directive 2010/75/EU on industrial emissions**

VOC-value (in g/L): 428

**National regulations**

**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

**Other regulations, restrictions and prohibition regulations**

**15.2. Chemical Safety Assessment**

For the following substances of this preparation a chemical safety assessment has been carried out:

EC No. CAS No.	Chemical name	REACH No.
500-060-2 28182-81-2	1,6-Hexamethylene diisocyanate homopolymer	01-2119485796-17

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830

**FEYCOLOR®**

Article No.: 114-4201 FEYCARBON Härter HS 420  
Print date: 21.11.2018 Revision date: 11.10.2018 999998 EN  
Version: 3.7 Issue date: 11.10.2018 Page 8 / 8

204-658-1 123-86-4	n-butyl acetate	01-2119485493-29
205-500-4 141-78-6	Ethyl acetate	01-2119475103-46

**SECTION 16: Other information**

**Full text of classification in section 3:**

Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Flam. Liq. 2 / H225	Flammable liquids	Highly flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.

**Abbreviations and acronyms**

ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW (WEL)	Occupational Exposure Limit Value
CAS	Chemicals Abstract Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DNEL	Derived No-Effect Level
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations concerning the International Carriage of Dangerous Goods by Rail)
UN	United Nations
LC	Lethal Concentration
LD	Lethal Dose
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

**Further information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.