

Klübertec HP 1-427

Silicone-free, water-miscible release agent for aluminium and magnesium pressure diecasting



Description

Klübertec HP 1-427 is a silicone-free, water-miscible mould release agent for aluminium and magnesium pressure diecasting. It is an aqueous emulsion of synthetic hydrocarbons, corrosion inhibitors and special additives.

Application

Klübertec HP 1-427 is suitable for all types of aluminium and magnesium alloys for silicone-free pressure diecasting.

Properties

Klübertec HP 1-427 was developed as a silicone-free alternative for aluminium and magnesium pressure diecasting because castings are often required to have silicone-free surfaces in order to avoid problems with paints and coatings. In addition, selected corrosion inhibitors protect the moulds perfectly.

Application notes

Klübertec HP 1-427 is mixed with water at a ratio of 1:80 to 1:150. The optimum mixing ratio depends on the complexity of the castings.

In closed circuits, especially when production is stopped for several days, biocides can be added to the ready-to-use mixture to give additional protection against bacterial contamination.

Even though the surfaces are not contaminated with silicone, we recommend cleaning the castings with Klüberol ZW 01-006 or another commercial alkaline or acid cleaners before painting or coating them.

Storage

The minimum shelf life is approx. 6 months when stored in a dry room, in the closed original container and protected against frost.

Packs

60 l container
200 l container
1000 l container

Klübertec HP 1-427

- mixing ratio with water from 1:80 to 1:150
- free from formaldehyde and silicone
- easily removable with aqueous cleaners
- not flammable
- good corrosion protection

Product data

Colour, texture	white, fluid
Density, g/cm ³	approx. 1.0
Active ingredients, % by wt.	approx. 25
pH- value	approx. 8.5

This product information leaflet should provide the reader with information for initial product selection. It constitutes neither an assurance of the product properties nor does it release the user from the obligation of performing preliminary tests with the selected lubricant. Klüber will make samples available for test purposes upon request.

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Safety Data Sheet

1.1 Product name: Klübertec HP 1-427 Code-No.: 037 247 30.12.1997	9. Physical and chemical properties Form liquid Colour white Odour none Boiling point ~ 100 °C Flash point none °C, DIN ISO 2592 Flammability not applicable °C Ignition temperature not applicable °C Autoflammability not applicable Lower explosion limit not applicable Upper explosion limit not applicable Vapour pressure-first not applicable Density approx. 1.0 g/cm ³ , 20 °C, DIN 51 757 Water solubility miscible, g/l pH value approx. 8,5, DIN 51 369 Outdoor time no data available, DIN 53 211 Further information None
1.2 Klüber Lubrication München KG Geisenhausenerstraße 7 D-81379 München Tel. ++49 - 89 78 76 - 0 telephone exchange Fax: ++49 - 89 78 76 - 333 Emergency telephone no.: ++49 - 89 7876 - 0	10. Stability and reactivity Conditions to avoid: None Materials to avoid: Strong acids and strong bases Hazardous decomposition products: None under normal use Additional information: None
2. Composition / information on ingredients Chemical characterization (preparation): Aqueous emulsion of synthetic hydrocarbon oil Additional information: No hazardous ingredients	11. Toxicological information The toxicological data has been taken from products of similar composition Acute toxicity: LD ₅₀ /oral/rat = > 2 g/kg (literature data) Chronic toxicity: None Human experience: Prolonged skin contact may cause skin irritation and/or dermatitis
3. Hazards identification No particular hazards known	12. Ecological information Information on elimination (persistence and degradability): The product has not been tested Behaviour in environmental compartments: Ecological injuries are not known or expected under normal use Ecotoxic effects: The product has not been tested Additional information: Do not discharge product unmonitored into the environment
4. First aid measures After inhalation: In the case of inhalation of aerosol/mist consult a physician if necessary After contact with skin: Wash off with soap and plenty of water After contact with eyes: Rinse with plenty of water After ingestion: Do not induce vomiting. Obtain medical attention Advice to doctor: Treat symptomatically	13. Advice on Disposal Disposal: Deliver surplus and used solutions to a physico-chemical treatment facility Dispose of contaminated packaging and recommended cleaning: Offer rinsed packaging material to local recycling facilities
5. Fire-fighting measures Suitable extinguishing media: The product itself does not burn. Use extinguishing measures that are appropriate to the environment Special Hazards: None Special protective equipment for firefighters: No special precautions required Additional information: None	14. Transport information GGVS / GGVE: not applicable ADN / ADN: not applicable IMDG-Code: not applicable ICAO / IATA-DGR: not applicable Further information: Not classified as dangerous in the meaning of transport regulations
6. Accidental release measures Personal precautions: Risk of slipping due to leakage/spillage of product Environmental precautions: Do not flush into surface water Methods for cleaning up / taking up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dispose of absorbed material in accordance with the regulations Additional information: None	15. Regulatory information Labelling according to EU-guidelines: The product does not require a hazard warning label in accordance with EC-directives/German regulations on dangerous substances National regulations
7. Handling and storage Advice on safe handling: No special handling advice required Advice on protection against fire and explosion: No special precautions required Requirements on storage rooms and vessels: Unsuitable materials: Steel Incompatible materials: Do not store together with food. Incompatible with strong acids and bases Further information on storage conditions: Store at room temperature in the original container	16. Other information Issue-department of Safety Data Sheet: Chemical Documentation, Tel.: ++49 - 89 7876 - 564
8. Exposure controls / personal protection Additional advice on system design: Provide appropriate exhaust ventilation at machinery Ingredients and specific control parameters: None Respiratory protection: No special protective equipment required Hand protection: No special protective equipment required Eye protection: No special protective equipment required Body protection: No special protective equipment required Other protection measures: No special protective equipment required General protection and hygiene measures: Avoid prolonged and/or repeated contact with skin. Clean skin thoroughly after work; apply skin cream. Remove soiled or soaked clothing immediately. Do not inhale aerosol	

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Klüber Lubrication, a member of the Freudenberg Group