LIX® 84-IC

Solvent Extraction Reagent

Description
LIX 84-IC solvent extraction reagent is water insoluble 2-hydroxy-5-nonylacetoephene oxime in a high flash point hydrocarbon diluent.

Principal uses
LIX 84-IC forms water insoluble complexes with various metallic cations in a manner similar to that shown below for copper:

\[ 2RH_{(org)} + Cu^{+2}_{(aq)} \xleftrightarrow{\text{R}_2Cu_{(org)}} + 2H^+_{(aq)} \]

Copper extraction from typical leach solutions is pH dependent. Stripping is accomplished with acid solutions such as a typical barren electrolyte from copper electrowinning.

Typical properties
- Physical form: Fluid amber liquid
- Specific gravity (25 °/25 °C): 0.93 – 0.95 g/cm³
- Flash point\(^1\): Greater than 170 °F
- Copper complex solubility: > 30 g/l Cu at 25 °C

\(^1\) Flash point is determined by Setaflash closed cup.

Performance specifications\(^2\)
- Maximum copper loading: 4.7 to 5.0 g/l Cu
- Extraction isotherm point: ≥ 3.65 g/l Cu
- Extraction kinetics: ≥ 90 % (60 seconds)
- Extraction Cu/Fe selectivity: ≥ 2000
- Extraction phase separation: ≤ 60 seconds
- Strip isotherm point: ≤ 0.50 g/l Cu
- Net copper transfer: ≥ 3.30 g/l Cu
- Strip kinetics: ≥ 90 % (30 seconds)
- Strip phase separation: ≤ 80 seconds

\(^2\) Performance parameters are determined using the Standard Quality Control Test of LIX Reagents, based on a dilution of 7.143

Storage & Shelf life
LIX 84-IC is stable for at least five years from date of manufacture in its unopened, original packaging.

Shipping
LIX 84-IC is available in drums, IBCs and bulk tanker deliveries.

Technical service
Advice and assistance in the running of laboratory and plant tests is given by representatives of BASF, who are experienced in mineral processing applications.

Health & Safety
Please refer to the Safety Data Sheet for detailed information concerning product’s hazards and appropriate protective measures in the workplace.
Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

December 2015