

# KETJENFLEX® 12

Bio-based Plasticizer

AXC.07.03

## General Information

KETJENFLEX® 12 is a citrate based plasticizer used in Plastics, Inks, Adhesives and Coatings.

## Description and Application

KETJENFLEX® 12 is a partially bio-based plasticizer with a very good toxicological profile. With a TDI (total daily intake) of 1.0 mg/kg body weight it is much safer than commonly used plasticizers such as dioctyl phthalates or diethyl hexyl adipates.

KETJENFLEX® 12 is generally used as safe phthalate replacement in many vinyl formulations like PVC plastics, vinyl flooring, solution vinyl resins, wood vinyl compounds and PVC based plastisols as for example used in coil coatings. Other main areas of use for KETJENFLEX® 12 are as a phlegmatizing agent for nitrocellulose resins and as plasticizer in coatings and inks based on cellulose resins.

In addition, KETJENFLEX® 12 is used as plasticizer in specific medical adhesives and drug release coating formulations.

Plasticizer applications of KETJENFLEX® 12:

- PVC based polymers
- Various vinyl based formulations
- PVC plastisols
- Nitrocellulose resins
- Cellulose acetate and butyrate polymers
- Acrylic based pharmaceutical polymers
- Cyanoacrylate based (medical) adhesives

KETJENFLEX® 12 is the preferred lubricant for metal sheets. It has good compatibility with the primer coating applied afterwards and does not need to be rinsed off.

## Specifications

Active content:	≥ 99.0%
Water content:	≤ 0.25%
Colour (as such):	≤ 30 Pt/Co
Acid value:	≤ 0.2 mg KOH/g

## Physical Properties

Appearance:	Clear liquid
Boiling point (1bar):	327°C
Viscosity (at 25°C):	35 mPas
Density:	1050 kg/m <sup>3</sup>
Solubility in water:	practically insoluble

## Toxicological information

Acute toxicity (oral):	LD50 rat ≥ 31500 mg/kg (ca. 30ml/kg)
Genotoxicity (Amestest):	not mutagenic
Biodegradation:	rapidly biodegradable

KETJENFLEX® 12 is approved by the U.S. Food and Drug Administration (FDA) according to CFR 21, sections:

- 172.515
- 175.105, 175.300, 175.320
- 178.3910
- 181.27

KETJENFLEX® 12 is listed on the Swiss Ordinance 'Verordnung' 817.023.21 Annex 6 Part A.

KETJENFLEX® 12 is listed in plastic directive 2007/19/EC with no SML indicated.

## Packaging and Storage

- 200 kg in steel drums, 4 on a pallet
- 1000 kg IBC
- Bulk deliveries

Keep packaging well closed. Store in a cool dry place.

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