# Technical Data Sheet
# BEROLAMINE-20 (BA-20)

## General

Chemical Composition
Higher polyethylene polyamines approx. 55%
(isomers of TETA, TEPA, PEHA, and higher)
Alkanolamines approx. 45%
(AEEA, DEA, Hydroxyethyl DETA, and higher)
CAS No.: 84238-53-9/68910-05-4
EINECS No.: 282-508-4/272-729-4

Berolamine-20 (BA-20; CAS 68910-05-4) is a blend of higher polyethylene polyamines and alkanolamines. BA-20 is used as an intermediate in the manufacture of asphalt additives, in polyamide resins and corrosion inhibitors. It is also used as a cement grinding agent and flotation agent.

## Sales Specification

| Characteristic | Unit | Specification | Methods of Analysis |
|---|---|---|---|
| Appearance | - | Dark brown liquid | 200 |
| Amine number | mgKOH/g | min 1100 | 234 |
| Water | w% | max 1.0 | 305 |
| Viscosity | mPa.s at 50°C | max 100 | 589 |

Methods of Analysis are available upon request.
In case of dispute, the listed Method of Analysis will be used as reference methods.

## Physical and Chemical Properties

| Property | Value | Property | Value |
|---|---|---|---|
| Form | viscous liquid | pH | 12 at 25 % solution |
| Colour | brown | Melting point/freezing point | < -30 °C at 1 013 hPa |
| Odour | ammoniacal | Boiling point/boiling range | 254 °C at 1 013 hPa |
| Flammability (liquids) | Not classified as a flammability hazard | Flash point | 176 °C at 1 013 hPa<br>Method: Pensky-Martens<br>ISO 2719 |
| Explosive properties | Not explosive | Auto-Ignition temperature | 355 °C at 1,013 hPa |
| Oxidizing properties | The substance or mixture is not classified as oxidizing | Vapour pressure | 0,00009 hPa at 20 °C |
| Water solubility | Soluble at 20 °C | Relative density | 1,024 at 20 °C |
| Solubility in other solvents | Soluble in ethanol and acetone | Partition coefficient: n-octanol/water | log Pow: -2,6 at 25 °C |
| | | Viscosity, dynamic | 40 mPa.s at 50 °C |