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Product Data Sheet

0.5% Ru/AT R 4871

DeOxo™ E

BASF R4871 / DeOxo™ E is used for the low temperature methanation of H_2 and CO mixtures. It can also be used for the methanation of CO_2.

General

R4871 / DeOxo™ E is a catalyst in the form of tablets with nominal dimensions of 3 x 3 mm and with Ruthenium as active component.

When delivered from Seneca, SC, U.S.A., the material is referred to as 0.5% Ru/AT 1/8" C4010.

The material is delivered dry and reduced.

Product Applications

R4871 / DeOxo™ E is used for the low temperature methanation (also referred to as super methanation) of H_2 and CO mixtures:

$$3\ H_2 + CO \rightarrow CH_4 + H_2O \qquad \Delta_R H = -206\ kJ/mol$$

With R4871 / DeOxo™ E this reaction can be carried out at temperatures as low as 180 – 190°C (355 – 375°F).

The methanation of CO_2 according to the following reaction is also possible.

$$4\ H_2 + CO_2 \rightarrow CH_4 + 2\ H_2O \quad \Delta_R H = -165\ kJ/mol$$

Special Operations

R4871 / DeOxo™ E does not need any special treatment. Indeed, the heating phase of the initial start-up will allow for final drying and activation.

Poisons

Ruthenium is very sensitive to sulfur components and heavy metals. Thus, it is important to ensure that any feed brought into contact with R4871 / DeOxo™ E is free of these components.

Storage

R4871 / DeOxo™ E does not deteriorate or constitute any hazard when stored in sealed containers. The containers should not be allowed to become damp or wet and should not be stored in contact with organic or easily oxidized vapors. For further information on storage, do not hesitate to contact BASF for further information.

Typical Properties	
Chemical Composition	
Ru on Alumina	0.5 % wt./wt.
Tapped Bulk Density	
CBD, g / ml	1.1
Surface Area	
S.A. (BET), m^2 / g	90

Packaging

- 62 l fiber drum (up to 50 kg net), Rome
- 28 Gallon fiber drum (up to 75 kg net), Seneca

Delivery Point:

- Rome, Italy
- Seneca, SC, U.S.A.

About Us

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