

**□□ 1: □□□□ □□ □□ □□ □□**

**1.1. □□□□**

□□ □□ : □□□  
 □□ □□ : AMMONIUM HYDROXIDE 18-20% SOLUTION AR  
 □□ □□ : 01231  
 □□ □□ : Solution  
 □□ □□ : Ammonia 18-20% Solution

**1.2. □□□□ □□ □□□□ □□ □□ □□ □□**

□□ □□ □□ : Laboratory chemicals, Manufacture of substances

**1.3. □□□□□□□□ □□□ □□**

LOBA CHEMIE PVT.LTD.  
 107 Wode House Road, Jehangir Villa, Colaba  
 400005 Mumbai  
 INDIA  
 T +91 22 6663 6663, F +91 22 6663 6699  
[info@lobachemie.com](mailto:info@lobachemie.com), [www.lobachemie.com](http://www.lobachemie.com)

**1.4. □□□□□□**

□□ □□ □□ : + 91 22 6663 6663 (9:00am - 6:00 pm)

**□□ 2: □□□·□□□**

**2.1. □□□·□□□ □□**

**Regulation (EC) No.1272/2008 [CLP] □□ □□ □□**

□□ □□ (□□), □□ 4 H302  
 □□ □□□/□□ □□□, □□ 1, □□□□ 1B H314  
 □□□□ □□□ - □□, □□ 1 H400  
 □□(H) □□ □ EUH □□ □□: 16□ □□.

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**2.2. □□□□□□□ □□ □□□□ □□**

**□□ (EC) No. 1272/2008 □□ □□ □□ [CLP]**

□□ □□ □□□□(CLP)



□□□ (CLP) : □□  
 □□ : AMMONIA

□□·□□ □□ (CLP) : H302 - □□□ □□□.  
 H314 - □□□ □□ □□□ □ □□□ □□□.  
 H400 - □□□□□□ □□ □□□.

□□ □□ □□(CLP) : P273 - □□□□ □□□□ □□□.  
 P280 - □□□□, □□□□, □□□□, □□□□□□ □(□) □□□□□□.  
 P301+P330+P331 - □□□□ □□ □□□□□□. □□□□ □□ □□ □□□.  
 P303+P361+P353 - □□(□□ □□□□) □ □□□ □□□ □ □□□ □ □□□□. □□□ □□ □□□□. □□□ □□ □□□□.  
 P305+P351+P338 - □□ □□□□: □ □□ □□ □□□□ □□□□. □□□□ □□□ □□□ □□□□□□. □□ □□.



# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ □□□ □□□ □□ : Toxic fumes may be released.

## 5.3. □□□□ □□□□ □□□□

- □□ : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- □□ □□ □□ : Do not attempt to take action without suitable protective equipment. □□□ □□□□□. Complete protective clothing.

## □□ 6: □□□□□ □□□□

### 6.1. □□□ □□□□ □□ □□□ □□□□ □□□□

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- □□ □□ □□ □□ : Wear recommended personal protective equipment.
- □□ □□ □□ : Ventilate spillage area. Evacuate unnecessary personnel. □□ □ □□□ □□□ □□□□. □□/□/□□/□□ □□/□□/□□□□ □(□) □□□□ □□□.
- □□ □□ □□ □□ : Do not attempt to take action without suitable protective equipment. □□□ □□ □□□□ □□□□□. □ □□□ □□□ □□ 8: "□□□□ □ □□□□□"□ □□□□□.
- □□ □□ : Ventilate area. Evacuate unnecessary personnel. □□□□ □□□□ □□ □□□□ □□□ □□□□.

### 6.2. □□□ □□□□ □□ □□□ □□□□

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### 6.3. □□ □□ □□ □□

- : □□□□ □□□□. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
- □□ : Take up liquid spill into absorbent material. □□□□ □□□□. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.
- □□ □□□□ : Dispose of materials or solid residues at an authorized site.

### 6.4. □□ □□ □□

For further information refer to section 13.

## □□ 7: □□ □ □□□□

### 7.1. □□□□□□

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- □□□□□□ : Ensure good ventilation of the work station. □□ □ □□□ □□□ □□□□. □□/□/□□/□□□/□□/□□ □□ □(□) □□□□ □□□. □□ □□□□ □□□□□□.
- □□ □□ : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. □□ □□ □ □□□ □□□ □□□□□□. □ □□□ □□□ □□□ □□□, □□□□ □□ □□ □□□. Always wash hands after handling the product.

### 7.2. □□□□ □□□ □□□ □□□ □□ □□

- □□ □□ □□ : Keep in a cool, well-ventilated place away from heat.
- □□ □□ □□ : Store in original container. □□□ □□□ □□□□□□. □□□□□ □□ □□□□□□.
- □□ □□ □□ : Store always product in container of same material as original container.

### 7.3. □□ □□ □□

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# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

□□□□□□□□

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## □□ 8: □□□□ □□□□□□

### 8.1. □□ □□ □□

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### 8.2. □□□□

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Ensure good ventilation of the work station.

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Wear recommended personal protective equipment.

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□□ □□:

Chemical goggles or safety glasses

#### Skin protection

□□ □□:

Wear a mask

□□ □□:

Protective gloves

□□□ □□□

□□□ □□□:

Wear appropriate mask

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## □□ 9: □□□□□ □□

### 9.1. □□□□ □□□□□ □□□ □□ □□

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: □□

□□

: Colourless.

□□

: Clear liquid.

□□

: ammonia like odour.

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pH

: Alkaline

□□(□□□)

: □□□□

□□□

: □: Miscible

Partition coefficient n-octanol/water (Log Kow)

: □□□□

# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□□□ : 500 hPa at 50 °C  
50°C□□□□ □□□□ : □□□□  
□□ : 0.93 g/cm<sup>3</sup>  
□□ : □□□□  
20°C□□□□ □□ □□ □□ : 0.59 (Air = 1.0)  
□□ □□ : □□□□

## 9.2. □□□□□□□□

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## □□ 10: □□□□ □□□□

### 10.1. □□□□

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. □□□□□□□□

Stable under normal conditions.

### 10.3. □□□□□□□□

No dangerous reactions known under normal conditions of use.

### 10.4. □□□□□□□□

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### 10.5. □□□□□□□□

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### 10.6. □□□□□□□□□□

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## □□ 11: □□□□ □□ □□

### 11.1. □□ (EC) No 1272/2008 □□□□, □□□□ □□□□ □□ □□

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### AMMONIUM HYDROXIDE 18-20% SOLUTION AR

ATE CLP(□□) : 500 mg/kg bodyweight

□□ □□□□ □□ □□□□ : Causes severe skin burns.  
pH: Alkaline

### AMMONIA (7664-41-7)

pH : > 10

□□ □□ □□ □□ □□□□ : Assumed to cause serious eye damage  
pH: Alkaline

### AMMONIA (7664-41-7)

pH : > 10

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# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

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## 11.2. □□ □□ □□

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## □□ 12: □□□ □□□ □□

### 12.1. □□

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### 12.2. □□□ □□□□

#### AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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#### WATER (7732-18-5)

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#### AMMONIA (7664-41-7)

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### 12.3. □□ □□□

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### 12.4. □□ □□□

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### 12.5. PBT □ vPvB □□ □□

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### 12.6. □□□ □□□□

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### 12.7. □□ □□ □□

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## □□ 13: □□□ □□□□

### 13.1. □□□ □□□

□□ □□(□□□) : Disposal must be done according to official regulations.  
□□□ □□□ : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
□□ □□ □□ □□ : Disposal must be done according to official regulations.  
□□/□□ □□ □□□□ : Disposal must be done according to official regulations.  
□□ □□ : Do not re-use empty containers.

## □□ 14: □□□ □□□ □□

ADR / IMDG / IATA / ADN / RID □□ □□

### 14.1. UN □□ □□ ID □□

UN-□□ (ADR) : UN 2672  
UN-□□ (IMDG) : UN 2672

# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

UN-□□ (IATA) : UN 2672  
UN-□□ (ADN) : UN 2672  
UN-□□ (RID) : UN 2672

## 14.2. UN □□ □□ □□

□□ □□□ (ADR) : □□□□ □□  
□□ □□□ (IMDG) : AMMONIA SOLUTION  
□□ □□□ (IATA) : Ammonia solution  
□□ □□□ (ADN) : □□□□ □□  
□□ □□□ (RID) : □□□□ □□  
□□ □□ □□ (ADR) (ADR) : UN 2672 □□□□ □□, 8, III, (E), □□□□ □□  
□□ □□ □□ (IMDG) : UN 2672 AMMONIA SOLUTION, 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS  
  
□□ □□ □□ (IATA) : UN 2672 Ammonia solution, 8, III, ENVIRONMENTALLY HAZARDOUS  
□□ □□ □□ (ADN) : UN 2672 □□□□ □□, 8, III, □□□□ □□  
□□ □□ □□ (RID) : UN 2672 □□□□ □□, 8, III, □□□□ □□

## 14.3. □□□□□ □□□ □□

### ADR

□□□□□ □□□ □□ (ADR) : 8  
□□ □□ (ADR) : 8



### IMDG

□□□□□ □□□ □□ (IMDG) : 8  
□□ □□ (IMDG) : 8



### IATA

□□□□□ □□□ □□ (IATA) : 8  
□□ □□ (IATA) : 8



### ADN

□□□□□ □□□ □□ (ADN) : 8  
□□ □□ (ADN) : 8



### RID

□□□□□ □□□ □□ (RID) : 8  
□□ □□ (RID) : 8



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## 14.4. □□□□

□□ □□ (ADR) : III  
□□ □□(IMDG) : III  
□□ □□ (IATA) : III  
□□ □□(ADN) : III  
□□ □□(RID) : III

## 14.5. □□ □□□

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□□□□□□ : □□  
EmS-No. (□□) : F-A  
EmS-No. (□□) : S-B  
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## 14.6. □□□□ □□ □□ □□□□

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□□ □□ (ADR) : C5  
□□ □□(ADR) : 543  
□□□(ADR) : 51  
□□□(ADR) : E1  
□□ □□(ADR) : P001, IBC03, LP01, R001  
□□ □□ □□ □□ □□(ADR) : MP19  
□□□ □□ □□ □□ □□□□ □□ (ADR) : T7  
□□□ □□ □□ □□□□ □□ □□ (ADR) : TP1  
□□ □□(ADR) : L4BN  
□□ □□□ □□ : AT  
□□ □□(ADR) : 3  
□□ □□ □□ □□ - □□(ADR) : V12  
□□ □□ □□(Kemler □□) : 80  
Orange plates (□□□□□□) :



□□ □□ □□ (ADR) : E  
EAC □□ : 2X

□□ □□

□□ □□(IMDG) : 5 L  
□□□(IMDG) : E1  
□□ □□ (IMDG) : P001, LP01  
IBC □□ □□(IMDG) : IBC03  
IBC □□ □□ (IMDG) : B11  
□□ □□ (IMDG) : T7  
□□ □□ □□ (IMDG) : TP2  
□□ □□ (IMDG) : A  
□□ □□□(IMDG) : SW2, SW5  
□□(IMDG) : SGG18, SG35  
□□□ □□□□ (IMDG) : Colourless liquid with a pungent odour. Corrosive to copper, nickel, zinc and tin and their alloys such as brass. Not significantly corrosive to iron and steel. Reacts violently with acids. Liquid and vapour cause burns to skin, eyes and mucous membranes.

□□ □□

PCA □□ □□(IATA) : E1  
PCA □□ □□(IATA) : Y841  
PCA □□ □□ □□ □□□(IATA) : 1L  
PCA □□ □□(IATA) : 852  
PCA □□ □□□(IATA) : 5L  
CAO □□ □□(IATA) : 856  
CAO □□ □□□(IATA) : 60L  
□□ □□(IATA) : A64, A803  
ERG □□(IATA) : 8L

# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□ □□ REACH □□ (EC) 1907/2006 □□ □□

□□ □□ □□

- □□(ADN) : C5
- □□(ADN) : 543
- (ADN) : 5 L
- (ADN) : E1
- (ADN) : T
- □□(ADN) : PP, EP
- □□/□□□ □□(ADN) : 0

□□ □□

- □□(RID) : C5
- □□(RID) : 543
- □□(RID) : 5L
- (RID) : E1
- □□ (RID) : P001, IBC03, LP01, R001
- □□ □□ □□ □□(RID) : MP19
- □□ □□ □□□□ □□ (RID) : T7
- □□ □□ □□□□ □□ □□ (RID) : TP1
- RID □□□ □□ □□(RID) : L4BN
- □□(RID) : 3
- □□ □□ □□ - □□(RID) : W12
- □□□ : CE8
- □□ □□ (RID) : 80

## 14.7. □□□□□□(IMO) □□ □□ □□ □□

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## □□ 15: □□ □□□□

### 15.1. □□, □□ □□ □□□□ □□□□ □□ □□□□ □□ □□ □□/□□

EU □□

REACH □□□ XVII (□□ □□)

EU restriction □□ (REACH Annex XVII)	
□□ □□	□□ □□
3(b)	AMMONIUM HYDROXIDE 18-20% SOLUTION AR
3(c)	AMMONIUM HYDROXIDE 18-20% SOLUTION AR
40.	AMMONIA

REACH □□□ XIV (□□ □□)

REACH □□□ XIV (□□ □□) □□ □□ □□ □□□□ □□

REACH □□ □□ □□ (SVHC)

REACH □□ □□ □□ □□ □□ □□□□ □□

PIC □□ (□□□□□□)

PIC □□(□□ □□□□ □□□□ □□ □□ EU 649/2012 ) □□ □□ □□ □□□□ □□

POP □□ (□□□ □□ □□□□)

POP □□□ □□ □□ □□□□ □□ (□□□□□□□□□□ □□ □□ EC 2019/1021)

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

□□□□ □□(428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ □□□□ □□ (2019/1148)

□□ □□□□ □□(□□ □□□□□ □□ □ □□□ □□ □□ EU 2019/1148)□ □□□ □□ □□□□ □□

□□ □□□□ □□ (273/2004)

□□ □□□□ □□□ □□□ □□□□ □□(□□ □ □□□□ □□□ □□□ □□□ □□ □□□ □□ □□ EC 273/2004)

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WGK : WGK 2, □□□ □□□ □□ (AwSV, □□□ 1□ □□ □□).

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SZW-lijst van kankerverwekkende stoffen : □□ □□□ □□□□ □□□□□.

SZW-lijst van mutagene stoffen : □□ □□□ □□□□ □□□□□.

SZW-lijst van reprotoxische stoffen – Borstvoeding : □□ □□□ □□□□ □□□□□.

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : □□ □□□ □□□□ □□□□□.

SZW-lijst van reprotoxische stoffen – Ontwikkeling : □□ □□□ □□□□ □□□□□.

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□□□ □□ □□ : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).  
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).  
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).  
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).  
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).  
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).  
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)  
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).  
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).  
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

## 15.2. □□ □□ □□□ □□

No chemical safety assessment has been carried out

## □□ 16: □ □□ □□□□

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ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor

# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

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BLV	□□ □□ □
BOD	Biochemical oxygen demand (BOD)
CAS □□	□□□□ □□ □□ □□(CAS)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	□□□ □□ □□□
CSA	□□ □□ □□□ □□
DMEL	Derived Minimal Effect level
DNEL	□□ □□□ □□
EC □□	□□ □□□ □□
EC50	Median effective concentration
ED	□□□ □□□□
EN	□□ □□
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	□□□ □□ □□
OSHA	Occupational Safety & Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	□□ □□□ □□
PPE	□□ □□□
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	□□□□□□□□
STP	Sewage treatment plant
TF	□□□ □□
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average

# AMMONIUM HYDROXIDE 18-20% SOLUTION AR

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□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

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COV	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	□□ □□ □□□

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H221	□□□ □□.
H302	□□□ □□□.
H314	□□□ □□ □□□ □ □□□ □□□.
H331	□□□□ □□□.
H400	□□□□□□ □□ □□□.

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